



**HACETTEPE ÜNİVERSİTESİ**  
**EĞİTİM BİLİMLERİ ENSTİTÜSÜ**

Department of Foreign Language Education

English Language Teaching Program

EFL INSTRUCTORS' SELF-PERCEPTION OF 21<sup>ST</sup> CENTURY SKILLS, THE ROLE OF  
THESE SKILLS IN TEACHING AND ASSESSMENT PROCEDURES

Ayşe ALTAY

Ph.D. Dissertation

Ankara, 2024

With leadership, research, innovation, high quality education and change,

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İNGİLİZCE ÖĞRETMENLERİNİN 21. YÜZYIL BECERİLERİNE İLİŞKİN ÖZ ALGISI, BU  
BECERİLERİN ÖĞRETİM VE DEĞERLENDİRMEDEKİ ROLÜ

Ayşe ALTAY

Ph.D. Dissertation

Ankara, 2024

### Acceptance and Approval

To the Graduate School of Educational Sciences,

This dissertation, prepared by **Ayşe ALTAY** and entitled “EFL Instructors’ Self-Perception of 21<sup>st</sup> Century Skills, The Role of These Skills in Teaching and Assessment Procedures” has been approved as a thesis for the Degree of **Ph.D.** in the **Program of English Language Teaching** in the **Department of Foreign Language Education** by the members of the Examining Committee.

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This is to certify that this thesis/dissertation has been approved by the aforementioned examining committee members on 24/07/2024 in accordance with the relevant articles of the Rules and Regulations of Hacettepe University Graduate School of Educational Sciences, and was accepted as a **Ph.D. Dissertation** in the **Program of English Language Teaching** by the Board of Directors of the Graduate School of Educational Sciences from ...../...../.....

Prof. Dr. İsmail Hakkı MİRİCİ

Director of Graduate School of Educational Sciences

## Abstract

This study aimed to investigate EFL instructors' self-perception of their own 21<sup>st</sup> century skills, and the role of these skills in their teaching and assessment procedures. This study exploited mixed method research design, which has a sequential explanatory approach. The participants of the study are 123 EFL instructors who teach English in various public and foundation preparatory schools. To collect the quantitative data, 21<sup>st</sup> Century Teaching and Learning Survey was utilized. Qualitative data was collected through semi-structured, face to face, online and onsite interviews with the participant instructors. Lastly, various assessment tools were collected from preparatory schools of different universities throughout an academic year as the other resources of the qualitative research data. To answer the first research question and its sub-questions, descriptive statistics, independent samples t-test and one-way ANOVA, for the second question correlation statistics was run into the data by using SPSS statistical software program. The third, fourth and fifth questions were analyzed through content analysis. Statistical tests revealed no significant differences across demographic factors of the instructors, which are gender, years of experience, educational background (BA, MA, PhD), and type of school (foundation vs. state) and 21<sup>st</sup> century skills. However, the study found a positive correlation between all the measured 21<sup>st</sup> century skills. Qualitative data results showed that instructors need to be equipped with the knowledge and skills to integrate 21<sup>st</sup> century skills effectively through ongoing professional development. Also, there is a need for utilizing diverse and engaging teaching practices and implementing creative and technology-integrated assessment methods. By addressing these points, EFL instructors can create dynamic learning environments that prepare students with the skills they need to thrive in the 21<sup>st</sup> century.

**Keywords:** 21<sup>st</sup> century skills, EFL instructors, teaching implementations, testing implementations

## Öz

Bu çalışmanın amacı, İngilizce öğretmenlerinin 21. yüzyıl becerilerine ilişkin öz algılarını ve bu becerilerin öğretim ve değerlendirme süreçlerindeki rolünü araştırmaktır. Bu çalışmada, sıralı açıklayıcı bir yaklaşıma sahip olan karma yöntem araştırma deseninden yararlanılmıştır. Çalışmanın katılımcıları, çeşitli devlet ve özel hazırlık okullarında İngilizce öğreten 123 İngilizce öğretim görevlisidir. Nicel verileri toplamak için 21. Yüzyıl Öğretme ve Öğrenme Anketi kullanılmıştır. Nitel veriler, katılımcı öğretmenlerle yarı yapılandırılmış, yüz yüze, çevrimiçi ve yerinde görüşmeler yoluyla toplanmıştır. Son olarak, nitel araştırma verilerinin diğer kaynakları olarak farklı üniversitelerin hazırlık okullarından bir akademik yıl boyunca çeşitli değerlendirme araçları toplanmıştır. Birinci araştırma sorusu ve alt sorularını yanıtlamak için betimsel istatistikler, bağımsız örneklem t-testi ve tek yönlü ANOVA, ikinci soru için SPSS istatistik yazılım programı kullanılarak verilere korelasyon istatistikleri uygulanmış, üçüncü, dördüncü ve beşinci sorular ise içerik analizi yoluyla analiz edilmiştir. İstatistiksel testler, öğretmenlerin cinsiyet, deneyim yılı, eğitim geçmişi (lisans, yüksek lisans, doktora) ve okul türü (özel ve devlet) demografik faktörleri arasında anlamlı bir farklılık olmadığını ortaya koymuştur. Bununla birlikte, çalışmada ölçülen tüm 21. yüzyıl becerileri arasında pozitif bir korelasyon bulunmuştur. Nitel veri sonuçları, öğretmenlerin 21. yüzyıl becerileri konusunda yeterli olması gerektiğini göstermiştir. Nitel veri sonuçları, öğretmenlerin sürekli mesleki gelişim yoluyla 21. yüzyıl becerilerini etkili bir şekilde entegre etmek için bilgi ve becerilerle donatılması gerektiğini göstermiştir. Ayrıca, farklı ve ilgi çekici öğretim uygulamalarının kullanılmasına ve yaratıcı ve teknolojiyle entegre değerlendirme yöntemlerinin uygulanmasına ihtiyaç vardır. Yabancı dil öğretmenleri bu noktaları ele alarak, öğrencileri 21. yüzyılda başarılı olmak için ihtiyaç duydukları becerilerle hazırlayan dinamik öğrenme ortamları yaratabilirler.

**Anahtar kelimeler:** 21. yüzyıl becerileri, İngilizce öğretim görevlileri, öğretim uygulamaları, ölçme uygulamaları

## Acknowledgements

I would like to express my deepest gratitude to everyone who has supported, guided, and contributed to the completion of this dissertation.

First and foremost, I would like to thank my advisor, Prof. Dr. İsmail Hakkı MİRİCİ, for his invaluable guidance, patience, and knowledge throughout this process. Without his motivation and encouragement, it would have been very difficult for me to complete the process of writing this thesis. I am also grateful to the members of my jury, prof. Dr. Murat Hişmanoğlu, Prof. Dr. Güven MEGNÜ, Assoc. Prof. Dr. İrfan TOSUNCUOĞLU, and Asst. Prof. Dr. Hatice ERGÜL for their critical evaluations and valuable feedback on my work.

To my beloved spouse, Assoc. Prof. Dr. İsmail Fırat ALTAY, I want to express my deepest gratitude to you. Your support and understanding mean the world to me. I am truly grateful to have you by my side through everything. Thank you for your unwavering support, understanding, and love.

A special thanks to my mom, dad, and my two sisters, Zehra, Şerafettin, Hati and Şiya, for being there to babysit my little daughters, which significantly helped me in writing this dissertation. I really couldn't have complete writing this dissertation if it wasn't for my mom.

Lastly, I extend my heartfelt thanks to my two little daughters, Ece and İpek, for their patience and understanding as I took time away from them to work on this dissertation. Their love and inspiration have been the driving force behind my efforts.

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## **Symbols and Abbreviations**

**4C:** Critical thinking, creative thinking, communicating, and collaborating

**ATC21S:** The Assessment and Teaching of 21<sup>st</sup> Century Skills Framework

**EFL:** English as a Foreign Language

**ICT:** Information and Communications Technology

**NCREL:** North Central Regional Educational Laboratory

**P21:** Partnership for 21<sup>st</sup> Century Skills

**PBL:** Project-Based Learning

**PD:** Professional Development

## Chapter 1

### Introduction

In today's age, a wide range of people, from educators to employers to policy makers, emphasize that 21<sup>st</sup> century skills are vital for the successful integration of society and the achievement of sustainable development (OECD, 2013). People in today's society need to have these skills to fulfill the demands of a continuously changing society. In this way, 21<sup>st</sup>-century skills have emerged as a fresh perspective on staying up to date with this time period. Accordingly, there are several definitions and conceptualizations of 21<sup>st</sup>-century skills, including communication, teamwork, critical thinking, problem-solving, creativity, and ICT literacy (Griffin, McGaw, and Care, 2012). Many national and international organizations have developed different frameworks to identify the skills they need to prepare their education systems for the future and to plan how to adapt them to their curricula (Silva, 2009).

Although they have taken place in the ideas of important people in history such as Socrates, today some skills have had profound importance and are called the 21<sup>st</sup> century skills, which can be categorized under four headings. In the first group, flexibility and adaptability; initiative and self-direction; social and cross cultural skills; productivity and accountability; leadership and responsibility come under the category of *life and career skills*. Mastery of *learning and innovation skills* including creativity and innovation; critical thinking and problem solving; communication and collaboration are of paramount importance while *information, media and technology skills* are defined as information, media and ICT literacy skills (Voogt & Roblin, 2010). In addition, the themes of *key subjects and the 21<sup>st</sup> century skills* include such concepts as global awareness, financial, economic, business and entrepreneurial literacy, civic literacy and health literacy. These skills are classified according to the P21 Framework for the 21<sup>st</sup> century learning, and they are desired to be acquired by individuals in order to be able to survive in today's technologically and universally connected world. Together with Partnership for the 21<sup>st</sup> century skills (P21, 2009, p.1), Ravitz (2014) combined the international innovative teaching and learning study and benefit from the Deeper Learning

Framework from the William and Flora Hewlett Foundation (2010), and listed the 21<sup>st</sup> century skills:

- critical thinking skills;
- collaboration skills;
- communication skills,
- creativity and innovation skills;
- self-direction skills;
- global connections;
- local connections;
- using technology as a tool.

In today's education system, while students learn to read and write, they are unable to comprehend what they read and convey their thoughts. Although they know a lot of information by heart, they are unable to see the relationships between events and make interpretations. When performing basic math, they are unable to calculate a statistic in their personal life. The most important problem is that students cannot read a graph or a table that they see on television and cannot question the reliability of the information they easily access on the internet (Wagner, 2008). 21<sup>st</sup> century skills aim to provide students with all these skills. The aim of 21<sup>st</sup> century education is to benefit from students' differences, to allow them to show their creativity, to gain critical thinking skills through different activities, and to allow them to evaluate themselves and their peers. This is where the competence of teachers, who play the most important role, in these skills and their willingness to teach them becomes increasingly crucial.

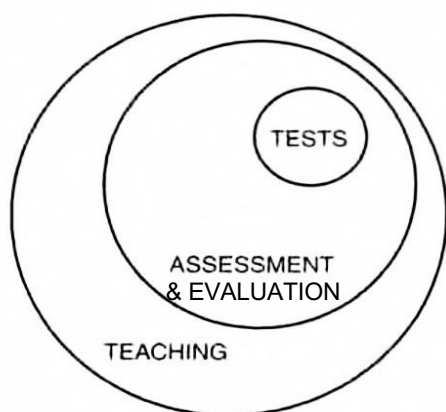
Preparatory schools at universities play a vital role in equipping students with essential 21<sup>st</sup>-century skills, and effective instructors are pivotal in this educational process. These schools serve as foundational pillars where students not only acquire academic knowledge but

also develop critical thinking, problem-solving abilities, creativity, communication skills, and collaboration techniques—skills deemed indispensable in today's rapidly evolving global landscape. Through innovative teaching methods and tailored curricula, dedicated instructors foster an environment that encourages intellectual curiosity and practical application of knowledge. Their guidance goes beyond traditional classroom learning, emphasizing the cultivation of adaptability and resilience necessary for success in diverse professional environments. Thus, preparatory schools at universities, supported by skilled educators, are instrumental in preparing students to navigate and thrive in the complexities of the 21<sup>st</sup> century.

As the other focus of this thesis, testing and assessment issues come to discussion. First of all, it is necessary to make the distinction between these two concepts. Although they are used interchangeably, they refer to two different things. Tests are designed to measure what is learned by the learners and whether they reached the aims of the courses at different times. In other words, a test is a product. On the other hand, assessment refers to the procedure that covers a wider domain. Any kind of response given by the teacher to the students can be counted as assessment, such as a smiling face put on a writing paper or a verbal comment that a teacher gives. All in all, assessment comprises tests. Above all of these comes teaching and evaluation which is the other major concern of this study together with the role of the 21<sup>st</sup> century skills on assessment.

### Figure 1

*Testing vs. Assessment (Adapted from Brown, 2018)*



When we compare the assessment of 21<sup>st</sup> century skills to more conventional techniques that emphasize rote memorization, they provide a different kind of difficulty. Academics such as Barton and Collins (2009) draw attention to the fact that standardized examinations are not very good at measuring the complexity of 21<sup>st</sup>-century skills. They support the transition to evaluations that are performance-based. Students must demonstrate their skills on these tests by completing exercises that are similar to actual situations. These give pupils the chance to demonstrate their abilities in real-world situations by assigning them meaningful and pertinent assignments. Presentations, portfolios, and project-based learning are a few examples. Technology has its useful applications as well. Online tools can make it easier to collaborate, give instant feedback, and design interesting assessment experiences. In the twenty-first century, evaluation also ought to promote reflection in addition to skill measurement. Students who actively participate in the evaluation of their educational journey acquire important metacognitive skills, or the capacity to reflect on their own thinking.

In conclusion, a distinct skill set that goes beyond conventional information acquisition is necessary to navigate the 21<sup>st</sup> century. Educators need to adopt a more comprehensive approach to assessment in place of standardized assessments. Teachers may give children the tools they need to succeed in the rapidly changing 21<sup>st</sup> century by instilling self-reflection and performance-based, authentic, and technology-integrated evaluations.

These appear to be the issues that need to be considered when testing 21<sup>st</sup> century skills as stated in the literature, however, the extent to which these are used in measurement processes, or rather whether they are utilized at all, are points that need to be uncovered in order to learn about the quality of education. Therefore, in this study, how much teachers know about 21<sup>st</sup> century knowledge and skills, as well as how much and in what ways they teach and test these skills, stand out as an essential issue to be explored and constitute the basis of this research.



## Statement of the Problem

The 21<sup>st</sup> century demands a unique skillset beyond traditional literacy and numeracy. These essential abilities, known as 21<sup>st</sup> century skills, encompass critical thinking, collaboration, communication, creativity, digital literacy, and global awareness. While the importance of integrating these skills into EFL instruction is widely recognized, there is a critical need to understand how EFL instructors perceive these skills and how effectively they translate this perception into their teaching and assessment practices in their classes.

According to Doğanay and Unal (2006), educators should encourage students to master 21<sup>st</sup> century skills and creativity in the classroom and grow professionally to be able to apply these abilities correctly. It is evident that any development in the classroom and in education will be difficult without the support and effort of the teachers; without their dedication, change in these areas will be difficult to achieve (Vandenberghe, 1984). The fact that instructors need professional development, training, and self-regulation in order to become acclimated to using these abilities and implementing them pedagogically is crucial to keep in mind. As a result, the study's primary goal is to find out how instructors view English language innovation and learning in the twenty-first century. Therefore, the primary goal of the study is to ascertain how English language instructors perceive 21<sup>st</sup> century skills, as well as to increase their knowledge and application of these skills. It is crucial to ascertain whether teachers are conversant with these concepts and how to apply them as limited research exists on the specific perceptions of EFL instructors regarding 21<sup>st</sup> century skills and their place in EFL instruction.

Apart from this goal of this study, revealing EFL instructors' self-perceptions and competencies of the 21<sup>st</sup> century skills, their practices of these skills and as well as their assessment practices of the 21<sup>st</sup> century skill are also needed to be uncovered. In traditional education classes, the main focus of teachers is to teach language structure but they lack teaching other skills such as creativity, problem solving, etc. Assessment also focuses on the judgment of learners' product not their process, which is believed that it should be replaced

with new assessment methods which are parallel with the 21<sup>st</sup> century skills like continuous assessment or performance-based assessment (Katitia, 2015). Therefore, it should be unrevealed how much EFL instructors know the 21<sup>st</sup> century skills and how much they use these skills in their classes and assessment tools. At this point, it is obvious that teachers should take the responsibility of their teaching and bring 21<sup>st</sup> century skills to the learning and teaching environment. Therefore, it is significant to explore EFL instructors' self-perception of their 21<sup>st</sup> century skills, their 21<sup>st</sup> century skills oriented practices because a gap exists between the theoretical understanding of integrating 21<sup>st</sup> century skills and the practical implementation within EFL classrooms, and use of these skills in their assessment processes as the current assessment practices in EFL classes may not adequately capture the development of 21<sup>st</sup> century skills.

### **Aim and Significance of the Study**

People have been preparing for millennials since the 20<sup>th</sup> century, therefore the effects of the 21<sup>st</sup> century have been felt since then. People have been able to psychologically qualify for the demands of the following century thanks to their efforts to fulfill the criteria of the time, stay up with advancements, and avoid becoming outdated. Globalized citizens are expected to possess a variety of skills, including 4Cs, which helps people in this world to be able to communicate, collaborate, think critically, and be creative. There is also need for technological growth for people, in our case for students and instructors.

Considering the popular place of the 21<sup>st</sup> century skills in the literature and the importance of it for teachers who bring up tomorrows' people, this study is significant as it will shed light on the EFL instructors' self-perception of the competencies concerning the 21<sup>st</sup> century skills, their practices of teaching them and the use of these skills in the assessment tools they developed for the students in their classes. In other words, this study is a step taken towards the assessment of instructors at universities in terms of their perceptions of

themselves with regard to their self-awareness of 21<sup>st</sup> century skills and the application of these skills in their classes.

This study also focuses on how much 21<sup>st</sup> century skills are integrated into the assessment systems of universities preparatory programs. By revealing this fact, the place of 21<sup>st</sup> century skills in the assessment process will be able to be uncovered. As instructors are the ones who prepare tests and educate students, their perspectives towards the 21<sup>st</sup> century skills and their role in the evaluation of students gains importance. Therefore, how much the students are assessed in terms of 21<sup>st</sup> century skills has utmost importance and plays a major role in keeping up with the changing and developing needs of the age, which make the topic worth investigating.

Specifically, this study raises questions about how EFL instructors perceive themselves in terms of the 21<sup>st</sup> century skills, including communication, collaboration, creativity, critical thinking, ICT literacy, local, connections, global connections and self-direction skills by revealing their practices of these skills in classroom environment and shed light on the place and role of those skills in assessment tools, in other words, asks whether these skills are assessed, if so, how.

Although many studies in the literature focus on if there is a place for the 21<sup>st</sup> century skills in some courses of pre-service instructors (Boe, 2013) and to what extent the curriculum of English teacher training programs covers 21<sup>st</sup> century skills (Ataberk & Mirici, 2022). This study differs from the others in its nature which questions the EFL instructors' practices and the place of the 21<sup>st</sup> century skills in their assessment processes by examining them in detail.

This study is significant as the findings will help instructors to be aware of themselves in terms of their awareness of 21<sup>st</sup> century skills. Not only instructors but test designers should also pay attention to the results of this study as it investigates the understanding and experiences of EFL instructors regarding the assessment tools used to evaluate these skills.

This study covers the following aims:

1. Uncovering how EFL instructors perceive themselves in terms of 21<sup>st</sup> century skills. How competent are they?
2. Finding EFL instructors' teaching practices of the 21<sup>st</sup> century skills. Which skills do they teach in the classroom?
3. The place of assessment of 21<sup>st</sup> century skills in English preparatory classes. How much are they assessed?
4. The role of the 21<sup>st</sup> century skills in the assessment procedures of the English Preparatory Classes.

### **Research Questions**

Considering the previous studies in the field, the following research questions are put forward in order to contribute to the literature:

1. Do the 21<sup>st</sup> century skills implementations differ by the EFL instructors' demographic features?
  - a. Gender
  - b. Years of teaching experience
  - c. Educational background
  - d. Type of school
2. Is there a significant correlation between the EFL instructors' knowledge and teaching implementations of 21<sup>st</sup> century skills?
3. What is the EFL instructors' self-perception of their 21<sup>st</sup> century skills knowledge?
4. What are the 21<sup>st</sup> century skills implementations of the EFL instructors?
  - a. What are their teaching implementations?
  - b. What are their testing and assessment implementations?

5. What are the 21<sup>st</sup> century skills that EFL instructors include in the alternative assessment tools they develop?

### **Assumptions**

The assumptions of the study are as follows:

1. The answers given to the data collection tools used in the thesis, i.e. survey and interview questions, are accurate and honest.
2. The interview questions are clear and accurately capture the intended information.
3. The sample of participants reflects all of the EFL instructors in Türkiye.
4. The results could be effective in other preparatory schools with similar student populations and resources.

### **Limitations**

Gall et al. (2017) talks about the research limitations and discuss the potential shortcomings of various research methodologies. By understanding these limitations, researchers can make better choices about their research design and interpret their results more accurately. After taking this viewpoint into consideration, the other points that cannot be controlled by the researcher are presented as the limitations of this study. Therefore, this study has the following limitations:

1. Participants are limited to the EFL instructors who participate in the study. It is not possible to reach all of the EFL instructors in Turkey, convenience sampling is preferred in this study.
2. This study is limited to 18 different preparatory schools in Türkiye, but there is a need to conduct more research with various teacher groups such as primary school or high school EFL instructors.

3. The study is restricted to the academic year 2022–2023.

## Definitions

The terms that are most frequently used in this study are explained under this section to aid the reader in understanding the concepts and theme as well as the overall structure of the research. This section aims to provide a detailed explanation of the 21<sup>st</sup> century skills keywords as well as other frequently used terminology in the study.

**21<sup>st</sup> century skills:** Although they have many different definitions, for instance, Voogt and Roblin (2010) defined them as life and career skills, learning and innovation skills, information media and technology skills and key subject and 21<sup>st</sup> century themes, in this study Ravitz (2014) categorization will be utilized, which are:

- critical thinking skills;
- collaboration skills;
- communication skills,
- creativity and innovation skills;
- self-direction skills;
- global connections;
- local connections;
- using technology as a tool.

**EFL:** English as a Foreign Language refers to the teaching of English to students whose native language is not English, and who are unlikely to be exposed to English in their daily lives. Stern (1983) clearly distinguishes between the concepts EFL and ESL. He defines EFL as the teaching of English to learners whose native language is not English and who have limited opportunities to use English outside the classroom.

**Assessment:** It is an ongoing process that is carried out to obtain information from students in order to understand what they know, and what they can do with the knowledge that they got as a result of their education (Brown, 2018).

## Chapter 2

### Theoretical Basis of Research and Literature Review

In this section of the thesis, what the 21<sup>st</sup> century skills are are firstly presented, which is followed with the various frameworks utilized in the literature in order to elaborate on the skills in detail from different perspectives. Next, assessment procedures, which are an integral part of the teaching process, exploited during 21<sup>st</sup> century skills instruction are presented subsequently as well as the place of these skills from the teachers' perspective in detail.

### 21<sup>st</sup> Century Skills

It has been a gradual realization that everybody needs a broad range of skills to be able to comply with the requirements of today's business world. It was commonplace to see people in the past carry out daily work manually without having to focus on various tasks at the same time. The global economy, modernization and technological developments have led to a rapid change in societies in the 21<sup>st</sup> century (Prensky, 2010). The integration of technology – particularly the use of computers – into people's lives has had a high-impact change resulting in the remarkable transformation of the skills needed by them. This situation has brought about the change of qualifications and skills that countries need for national and international development, sustainable welfare and competitive economy, and qualified individuals that countries want to raise (Gardner, 2010). This innovation in the world has also affected the required skills, which was once only conducting tasks that included solving basic problems and establishing communication straightforwardly, and exchanged with the skills such as complex problem-solving skills, affective communication and interpersonal skills, which is also called social skills. That these are becoming worthwhile more and more each day in the business world affects and requires replacement of the skills individuals need in the workplace with other skills like cognitive and affective skills. These skills, which started in the workplace, are attributed as "21<sup>st</sup> century skills", which comprises communicating effectively with other people around the world, working collaboratively, solving difficult problems, thinking critically, adapting



to the new environments various working conditions easily, using technology appropriately, learning new life skills and how to get information on one's own (National Research Council, 2011).

21<sup>st</sup> century skills are the name given to the skills which are not recently discovered but which have had importance throughout history. For instance, principles such as critical thinking or creativity have been stated in the words of Socrates, and gained popularity with the work of John Dewey. What made them so popular today is the research and works of some organizations and researchers (Griffin, McGaw and Care, 2012). Together with the changing trends of the workplace, these skills have become important for the education world, too. What affected this transformation is mainly the invention and improvement in the field of Information and Communication Technologies (ICT). Accordingly, the necessity of critical thinking and problem solving skills in the workplace have made it important and crucial for individuals to learn them at school, too. Therefore, integration of 21<sup>st</sup> century skills into education has paramount importance as modernization to be undergone to acquire this knowledge is the main goal of this age. Today's understanding of education puts an emphasis on the role of the 21<sup>st</sup> century skills in education systems. To put it differently, it is inevitable for individuals to acquire these skills through education in order to be able to survive better in this age.

The fact that education should be reformed based on the changes in the world, especially regarding the innovations in communication and information technology, which was the idea proposed by Kozma (2011). Rather than individuals or what they know, global citizenship has become the main discussion point, which also paved the way for 21<sup>st</sup> century skills. Although an abundant number of works has been done on this issue, 21<sup>st</sup> century skills do not have a single concise definition which is accepted by the world as only one truth to be followed. Hence there are a multitude of frameworks describing skills including social skills, interpersonal skills, information and communication technology skills, etc. (Silva, 2009). Any framework that tries to be established has endeavored to find an answer to the question of in what ways individuals could deliver performance in an effective way in the nation and also tries

to draw a detailed and inclusive plan including the skills or competencies that individuals need to survive.

Following the changes in the field of education, transformation in language learning should also be empowered. A second language, English in this context is necessary for communication in many parts of life such as education, economy, global affairs, and commercial issues, etc. Learning language to be able to communicate in our global world is the key and has the utmost importance, which requires keeping up with the changes in the global scale. Put it differently, as being the most widely spoken language, English is very important for people in both their daily life and professional life. Therefore, in the 21<sup>st</sup> century, being able to speak fluently and accurately in a second language, in English, is the desire of many people and a necessity for future life. What makes the English language have such an important role is the high speaking rate of that language and it being acquired as the lingua franca (Canagarajah, 2007).

Individuals have been learning new skills and abilities to improve themselves in English, to become more fluent, and to increase their accuracy. It is obvious that each person will need this language to be able to survive in both their education life, career and even socially. All these changes have led to the differences and transformation and adaptations in the field of language education, which are critical skills and competencies in the 21<sup>st</sup> century.

Using translation and teaching from a textbook has been the most popular foreign language teaching methods from past to present, by putting the knowledge at the center of teaching not placing emphasis on other skills. This then gave its place to the communicative approach, which came out in the 1980s and changed language teaching context to a more authentic and communicative situation as a reaction to the past teaching method. Together with these changes, time continues to pass and present changes in front of us, which forces people to keep up with. These changes are mostly related to the globalizing world. Today, the world is a place which is more interconnected thanks to business affairs and advances in technology. As a result of these changes communication and collaboration with the speakers

of other languages became a necessity. Together with the capability of using language communicatively, there is a demand for operating effectively with the new technologies and meeting the requirements of the 21<sup>st</sup> century.

When we look at the issue from the educational perspective, what is obvious is that if teachers have developed these skills and have internalized them, then it becomes a natural outcome to observe them on the learners in their classes. In other words, it is necessary for teachers to be aware of the changes in foreign language teaching field since they are responsible for providing the necessary skills to the students. As Gilroy (2015) states, the integration of the 21<sup>st</sup> century skills to the education programs is the key to solving the problems that students may face in the future, and teachers are the person who is in charge of this responsibility in classrooms. If the teacher has the awareness that s/he is the main character in the integration of these skills in the learning environment, this will result in a higher quality learning. Therefore, in order to be able to survive in this era students need teachers who are competent in terms of 21<sup>st</sup> century skills.

Considering all the points mentioned so far, and international organizations such as UNESCO and OECD focusing on the importance of these skills, it is not easy to reach a concise definition of the 21<sup>st</sup> century skills, but there are various frameworks drawn on. These frameworks are as follows: The partnership for 21<sup>st</sup> century skills (P21) framework, the north central regional educational laboratory and Metiri group (NCREL) framework, The American national research council (NRC) framework, Assessment & teaching of 21<sup>st</sup> century skills (ATC21s) framework, International society for technology in education (ISTE), the organization for economic cooperation and development (OECD), and the Asian society framework, each will be touched upon here one by one in detail.

### **Frameworks of 21<sup>st</sup> Century Skills**

In order for the individuals to be successful in their educational processes and in order to show success in their professional lives and in their professional lives, different “21<sup>st</sup> Century

Skills Frameworks” have been created with the support of stakeholders such as countries, community institutions, universities, organizations, corporate leaders, and educators. Below is the P21 framework and explanations on other 21<sup>st</sup> century skills frameworks accepted in the literature.

### ***The Partnership for 21<sup>st</sup> Century Skills (P21) Framework***

P21 was established in 2002 in cooperation with policy makers with the aim of equipping students with the necessary skills to compete in the global economy of the 21<sup>st</sup> century and preparing them to be global citizens (P21, 2009).

P21 Framework was developed by P21 as a result of feedback from business leaders, educators, education professionals to define expertise and support systems to be able to achieve the learning outcomes the 21<sup>st</sup> century education, life, work and citizenship, and to define the skills, knowledge, and skills they need to be successful individuals in their fields. P21 aims to promote the importance of 21<sup>st</sup> century skills and to make individuals better creators and problem solvers by approaching not only people in the business world but also in the education world. P21, which has associates all over the world, provides an ever-lasting support in terms of educational and career needs, by creating the knowledgeable and qualified individuals who are connected to the global world closely.

In P21 Framework, as shown in figure 2, the upper part shows “learning outcomes”, the bottom part represents “support systems”. Support systems, which are 21<sup>st</sup> Century Standards and 21<sup>st</sup> Century Assessment and Evaluation of Skills, 21<sup>st</sup> Century Program and Teaching, 21<sup>st</sup> Century Professional Development and 21<sup>st</sup> Century Learning Environments, were created to effectively realize learning and innovation skills, and knowledge. Within the 21<sup>st</sup> Century Learning Framework, it was not only emphasized to identify 21<sup>st</sup> century skills, but also to include all the basic elements of education and to improve continuously. At the center of the framework are the Core subjects and 21<sup>st</sup> century themes. Core subjects are defined as language arts, world languages, English, arts, mathematics, economy, science, geography, history, state and citizenship, which is complemented with interdisciplinary themes, such as

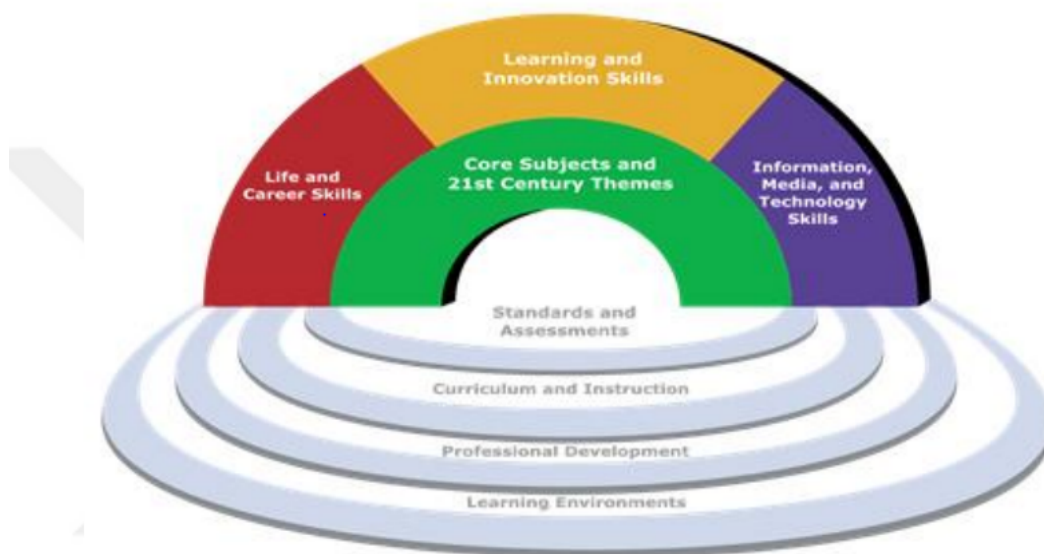
global awareness, economics, health literacy, etc. (P21, 2009). These interdisciplinary themes are emphasized to be integrated into the core subjects. Consisting of three parts, Key Issues and 21<sup>st</sup> Century Themes and 21<sup>st</sup> Century Skills are located at the top of the model. According to the framework, the skills and competencies that an individual should possess are as follows (P21, 2009):

1. Learning and Innovation Skills: creativity, innovation, critical thinking, problem solving, communication and collaboration.
2. Information, Media and Technology Skills: information literacy, media literacy and technology literacy.
3. Life and Career Skills: flexibility, adaptability, assertiveness, self management, social and intercultural skills, productivity, responsibility and leadership.

These core subjects are to be arranged in a way that it should result in success for the individuals in the 21<sup>st</sup> century. As they are the basis of the understanding and the development of 21<sup>st</sup> century skills, core subjects and the 21<sup>st</sup> century themes takes place at the center of the framework. Particularly, creativity, collaboration, communication and critical thinking, 4Cs in other words, have paramount importance in today's education world for the learners to reach academic success. These skills, represented in the figure 2, provide a sound basis for both creating learning chances and fulfilling the learners' future needs. All of these have been reached thanks to the rapid change in societies' global economy, modernization, technological developments and information in the 21<sup>st</sup> century.

## **Figure 2**

*P21 Framework for Partnership for 21<sup>st</sup> Century Learning (P.21, 2009)*



Core subjects are not only the variables in the framework, but also there are some other factors that affect the process that these skills are acquired. Learning environment, school administrators, curriculum followed, and other participants, such as students, teachers, and also assessment methods like standard tests, portfolio assessment, and even feedback are important parameters in the framework. Though each point is represented separately in the framework, this does not show that they are disconnected. The situation is quite opposite: each element in the framework is related and connected to each other, and each affects learning and the teaching directly in the 21<sup>st</sup> century.

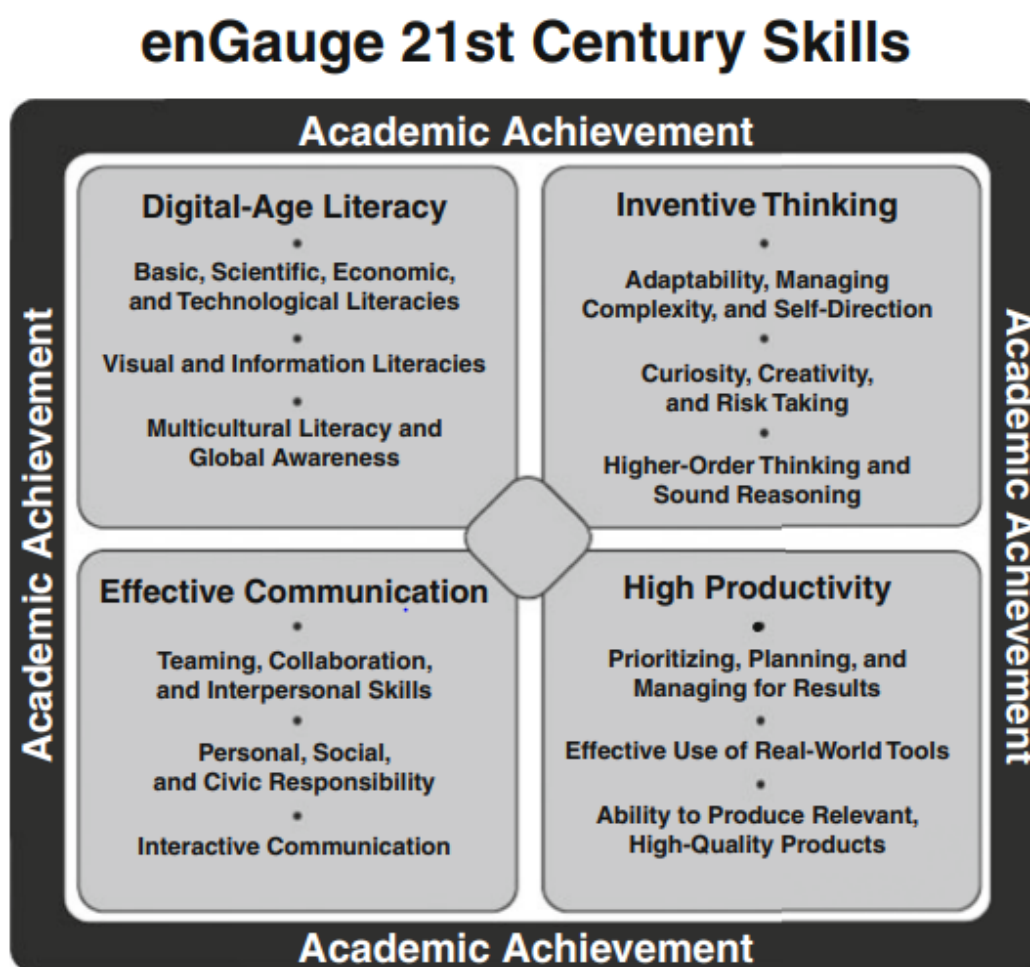
***North Central Regional Educational Laboratory (NCREL) and Metiri Group 21<sup>st</sup> Century Framework/Engauge 21<sup>st</sup> Century Skills***

NCREL or enGauge created the skills framework by taking into account the requirements of age, analyzing existing frameworks, data they obtained from educators at the end of a two-year joint study by NCREL (North Central Regional Educational Laboratory) and Metiri Group in 2003. In 2003, EnGauge Framework was a web-based framework which explains information crucial for the student learning in the 21<sup>st</sup> century by exploiting the technology and by providing an online survey to be used by the schools and educators to undertake online assessments. In addition, it puts emphasis on the value of the 21<sup>st</sup> century

learning/teaching skills as an online platform and framework (NCREL & Metiri, 2002). They also point out that this framework should be acknowledged as the academic standards for educators, as well as a link that connects students to the working environment. It is also stated that these skills do not disregard traditional skills of education, on the contrary they are built on these traditional ones and adapted to the changing technologies and modern world (NCREL & Metiri, 2002).

**Figure 3**

*enGauge 21<sup>st</sup> Century Skills (NCREL & Metiri, 2002)*



They categorized 21<sup>st</sup> century skills under four headings, which are digital-age literacy, inventive thinking, effective communication and high productivity. Each skill group is further subdivided, which are shown in figure 3. These skill clusters are shaped with the aim of creating a common basis for the business world and education world at the same time. In other words,

it aims to reach a common understanding by providing the needed scheme to individuals, specifically, students, workers living in this digital world.).

### ***The Assessment and Teaching of 21<sup>st</sup> Century Skills Framework' (ATC21S)***

In response to concerns that traditional education wasn't equipping students for the demands of the 21<sup>st</sup> century, Cisco, Intel, and Microsoft partnered on a project launched at a 2009 London forum. They started a project called The Assessment and Teaching of 21<sup>st</sup> Century Skills Framework (ATC21S). With the help of numerous organizations and the combined efforts of Australia, Finland, Portugal, Singapore, the United Kingdom, and America, this project was completed. It sought to define, assess, and incorporate into learning settings the skills necessary for an individual to be successful in social and professional life in the twenty-first century. It was predicated on the notion that since pupils were ill-prepared for 21<sup>st</sup>-century life, curriculum and assessment techniques had to be revised to address this issue.

There is also an abbreviation for this framework. The terms knowledge, skills, attitude, values, and ethics are represented by the acronym KSAVE, which also serves as a representation of this framework. It comprises ten skills.:

1. Creativity and innovation,
2. Critical thinking, problem solving, decision making,
3. Learning to learn / metacognition (knowledge about cognitive processes)
4. Communication,
5. Collaboration (teamwork)
6. Information literacy,
7. ICT literacy,
8. Citizenship - local and global,
9. Life and career



#### 10. Personal and social responsibility (Binkley et al., 2012)

These ten skills were categorized under four headings: ways of thinking, ways of working, tools for working, and ways of living in the world. The different aspects within the various skills are difficult to categorize as knowledge components, sub-skills, or elements of attitude, values, and ethics when looking at ATC21S' entire definitions of the ten skills stated above.

#### ***The American National Research Council [NRC]***

In order to keep up with the needs of the age, the importance and necessity of cognitive and affective skills which are generally stated as 21<sup>st</sup> century skills have been proved. The National Research Council conducted some studies on this issue with the aim of identifying, teaching, and evaluating skills that individuals need in their education and work life. They organized workshops at certain time intervals, as a result of which the knowledge and skills that is needed are classified as follows:

1. Cognitive Skills: critical thinking, non-routine problem solving, systems thinking.
2. Interpersonal Skills: complex communication, social skills, teamwork, cultural sensitivity, dealing with diversity
3. Intrinsic-Essential Skills: self-management, time management, self-development, self-regulation, adaptability, and executive functioning skills (NRC, 2011).

#### ***The Asian Society***

The Asian society which is an international institution published a work, which is Measuring 21<sup>st</sup> Century Competencies: Guidance for Educators, based on the NCR report in 2013. This framework does not aim to present a set of 21<sup>st</sup> century skills under specific categories which is also provided under other frameworks, but to identify the problems encountered assessing these competencies, which are not measured and difficult to measure in traditional assessment types. That's why, they wanted to describe categories which encompass the skills important for the 21<sup>st</sup> century and some sub instances of these

categories. Their categories are mainly based on the ones defined by the National Research Council, as well as some other 21<sup>st</sup> century competencies by other organizations.

The skills are as follows:

1. Cognitive competencies: academic mastery, critical thinking, creativity
2. Interpersonal competencies: communication and collaboration, leadership, global awareness
3. Intrapersonal competencies: growth mindset Learning how to learn Intrinsic motivation.  
(Soland, Hamilton & Stecher, 2013)

They chose these broad competencies considering the following two points: (1) according to studies, instructors may affect students' mastery of these skills, and (2) the skills are clearly stated to allow for various evaluation alternatives.

### ***The OECD Approach***

Through two significant efforts, the OECD's approach to new competences and skills has been developed, which are the Definition and Selection of Competencies (DeSeCo) Programme and the Programme for International Student Assessment (PISA). With their effort, a typology that was helpful to people was offered with many categories of talents in question. These competence categories are ICT functional skill, ICT skills for learning and 21<sup>st</sup> century skills. It is asserted that competence is not just knowledge but it is something more than that. A competence gives more information to us than knowledge or skill, which is a more general definition that includes abilities, attitudes, and knowledge. Considering all of the above, the OECD defines 21<sup>st</sup> century skills as skills youth will need to possess in the knowledge society of the twenty-first century in order to function effectively as employees and citizens. As a result, they established a framework with three sub-competences: information, communication and ethics and social impact (Ananiadou & Claro, 2009).

### ***Framework of 21<sup>st</sup> Century Skills by Ravitz (2014)***

It has long been believed that learning a second language opens up better career, social, and academic chances. Young people must acquire new skills in order to survive in the 21<sup>st</sup> century in terms of their careers and social lives due to revolutions in science, technology, industry, education, and everything else that affects life. Therefore, in order for today's students to succeed beyond school, they must develop a variety of abilities, which are presented by Ravitz (2014), although they mostly match with the previous frameworks. Ravitz (2014) draws on the Deeper Learning Framework and the findings of international Innovative Teaching and Learning study (Shear, Novais, Means, Gallagher, & Langworthy, 2010) as well as the framework of Partnership for 21<sup>st</sup> century skills (P21, 2009). The 21<sup>st</sup> century skills that he offered are as follows:

- critical thinking skills;
- collaboration skills;
- communication skills,
- creativity and innovation skills;
- self-direction skills;
- global connections;
- local connections;
- using technology as a tool.

There are wide diversity skills that have been named and composed as 21<sup>st</sup> century skills since the end of the twenty first century. Considering all of the above mentioned frameworks, it is obvious that the skills needed for the future make up these frameworks. A collection of knowledge abilities, work habits, and character traits that are essential for success in academic studies and contemporary employment make up 21<sup>st</sup> century competencies. Although there is some agreement on what the 21<sup>st</sup> century skills are, there is not also complete agreement across all frameworks developed (Lamb, Maire, & Doecke, 2017). In other words, not all of them but some of the skills match in each suggested framework of 21<sup>st</sup> century skills.

## **21<sup>st</sup> Century Skills in Foreign Language Classes**

Being able to operate a computer or smartphone or even just switch one on is not enough to succeed in the digital world of today. It necessitates the use of critical thinking, creativity, innovation, communication, digital citizenship, information fluency, and other crucial 21<sup>st</sup> century abilities. Although the majority of students can use applications on their mobile device, they do not naturally possess the requisite 21<sup>st</sup> century abilities.

FL education in the twenty-first century must be flexible and adaptable, giving students a wide range of skills necessary for efficient functioning in a globalized society in addition to language competence. This change improves language acquisition while also equipping students to deal with the challenges of contemporary teamwork and communication.

In order to ensure that students are adequately equipped to operate effectively in the contemporary world, foreign language (FL) education in the twenty-first century must adapt to their ever-changing and expanding demands (Baran-Lucarz & Klimas, 2020). Globalization and digitalization have brought about significant changes to language learning and teaching methods as well as communication. Consequently, using cultural and linguistic understanding as a means of communication and connection with people around the world is the primary priority in the teaching of languages in the twenty-first century, rather than on grammar, memorization, and learning by rote (Eaton, 2010).

When the literature has been read, a recent thesis by Paulsen (2017) about a new national curriculum is being created that will incorporate 21<sup>st</sup> century skills and place more emphasis on the abilities students will need in the future has found a place for itself here. The main goal of this thesis is to investigate ways to combine subject knowledge with 21<sup>st</sup> century skills in pedagogical practice. To do this, it examines assertions made by an educational gaming platform (Breakout EDU) that say breakout games may make this coupling easier. The main objective of this thesis's research is to determine if playing educational breakout games in an upper secondary EFL classroom has any advantages. To do this, the thesis examines

how students experienced and valued a breakout game activity designed especially for use in the English classroom, assesses how the abilities that students performed throughout the activity relate to the existing and emerging standards, and gauges the compatibility of the lesson's planned, experienced, and observed components. By utilizing a case study research methodology, doing a literature evaluation, and triangulating data gathering and analysis, the thesis is able to accomplish its stated research goals. Field notes taken while watching students play a breakout game, student replies to a post-activity questionnaire, and finally transcriptions from a focus group discussion that was based on the observational and questionnaire data make up the empirical material. The results of focus group interviews, empirical questionnaire analysis, and observation field notes show that students not only love the game but also that it helps them acquire outcomes that are pertinent to both the subject matter and 21<sup>st</sup> century abilities. The thesis indicates that using breakout games in an EFL classroom has advantages and further recommends that the strategy may be used as a 21<sup>st</sup> century teaching method in addition to conventional teaching methods.

In general, the abilities that have been discussed are largely viewed as being necessary for teachers and schools in the present. In order to adapt education to this age and prepare our students for the future, as well as, ideally, to keep up with both job needs and technology improvements, it is necessary to emphasize such talents in our educational system. It is clear that foreign language courses should serve as environments where students acquire a variety of abilities that will enable them to succeed in a variety of contexts outside of just language proficiency (Baran-Lucarz & Klimas, 2020).

### **Studies Related to the 21<sup>st</sup> Century Skills in EFL Classrooms**

Numerous studies have demonstrated how important 21<sup>st</sup> century skills are to EFL classes. These skills, such as collaboration, critical thinking, problem-solving, and digital literacy, are not only essential for success in academic pursuits but also increasingly valued in the modern workplace. Following studies suggest that integrating these skills into EFL

instruction can significantly enhance student learning outcomes. Studies have shown that project-based learning, for example, fosters collaboration and communication as students work together to research topics, solve problems, and present their findings. Additionally, incorporating technology into language learning activities can develop digital literacy skills while promoting creativity and critical thinking. The emphasis on 21<sup>st</sup>-century skills in EFL classrooms reflects a shift towards a more holistic approach to language education, one that equips students not only with linguistic proficiency in terms of writing but also with the broader skill set necessary to thrive in a rapidly changing world.

According to the findings of Aguila's (2015) study with 35 English Language and Literature students, which aimed to determine whether there is a significant correlation between the levels of possession of 21<sup>st</sup> century skills and the dimensions of 21<sup>st</sup> century skills, the levels of possession of 21<sup>st</sup> century skills were determined as very good in all three sub-dimensions, and social and intercultural skills, which are sub-dimensions of life and career skills, were determined as excellent. In addition, the correlation between the three dimensions was reported to be high.

According to Halvorsen (2018), assignments that require students to conduct research, discuss or debate the issue with classmates, and write on the topic they learn can readily engage all four language skills. These assignments also don't call for a high degree of English ability. Even at lower intermediate levels, students are capable of conducting simple research and engaging in insightful conversations with peers about actual problems. They can work in groups to develop their communication, creativity, critical thinking, and teamwork abilities by participating in discussions, short filmmaking, interviewing, comparing acting in plays, preparing presentations, and trying to discover answers to specific problems. Lessons in EFL classrooms can be constructed using a cross-curricular framework and can take on different dimensions in order to improve 4C skills.

The purpose of this study by Motallebzadeh et al. (2018) was to examine the connection between EFL students' speaking and writing abilities and 21<sup>st</sup> century competencies. 122 EFL

students from three private language schools in Mashhad constituted the participants. Convenience sampling was used in their selection process, and participation was completely voluntary. The independent sample t-test, Pearson's correlation coefficient, and structural equation modeling (SEM) have been employed to examine the connections between the different components of 21<sup>st</sup> century skills. Structural Equation Modeling results showed an important correlation between students' writing and speaking and 21<sup>st</sup> century competencies. The relationship between the five components of the 21<sup>st</sup> Century Skills - technology literacy, leadership, interpersonal skills, communication and cooperation, and critical thinking and problem solving—were investigated in connection to speaking and writing scores. Communication and cooperation showed the strongest association with the foreign language speaking score among the five sub-constructs of the 21<sup>st</sup> century skills questionnaire, while technological competence correlated with the foreign language writing score at the highest level.

Asri (2019) offered several original methods for fostering critical thinking in EFL classes for the twenty-first century. Writing diverse kinds of texts for varied objectives, creating digital works like movies and multimedia, and developing arguments based on data collection are a few examples. The management of flow of data from a variety of resources and the utilization of technology for information inquiry, organization, storage, and communication are further strategies related to understanding and utilizing ICT literacy. With regards to life skills, students can solve issues that have an impact on the community at large or solve problems at the national and worldwide levels to act as members of the worldwide or local community.

In addition to the other studies, the main goal of research in Puangpunsi's (2021) study was to examine how project-based learning might help students enhance their 21<sup>st</sup> century and English language proficiency. To do this, the study used a combination of qualitative and quantitative approaches. Regarding this, the primary participant group consisted of 104 young adults who were enrolled in university courses to study English. They were initially assigned to work in small groups to develop a project over the course of 15 weeks. To finish the project,

they had to go through a number of steps, including identifying the issue, coming up with solutions, organizing it, conducting the project, managing the process, and finishing it. Upon completion, the students were given a survey to assess the individual impact of this approach on their language proficiency and 21<sup>st</sup> century competencies. The results showed that project-based learning improved students' ability to collaborate and operate as a team. Additionally, it was mentioned that students developed their critical thinking skills, digital literacy, abilities to solve problems, capacity for change and flexibility, knowledge of information, and communication skills while working on the project.

Monib (2023) carried out a study wherein the researcher reviewed the perspectives of learners as well as instructors about the incorporation of contemporary skills in language classes across three distinct universities. Monib (2023) used a questionnaire to find out how frequent integration of 21<sup>st</sup> century abilities occur in EFL lessons, with the goal of determining the scope of this investigation. Results showed that all of the abilities were integrated into the classes, as the data indicated, although at varying rates—from a few times each semester to one or three times per month. Accordingly, it was discovered that the best technology-integrated abilities for enhancing communication and learning were collaboration and teamwork. On the contrary, self-direction, global and local connection, and critical thinking were ranked as the least integrated abilities by instructors as well as pupils. However, the participant groups' ratings of creativity and innovation varied; teachers reported integrating it 1-3 times each month, whereas students indicated a few times per term. All of these studies showed that 21<sup>st</sup> century skills have an important place in the foreign language learning and teaching field.

### **21<sup>st</sup> Century Skills of EFL Instructors**

When education systems and teacher training policies of countries that have achieved sustainable success in the Program for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) exams in recent years are examined,



it was observed that one of the most emphasized points was the inclusion of 21<sup>st</sup> century skills at every stage of the education system. Teachers are acknowledged as the primary participants in the educational process as well as the key to implementing improvements. As such, they must be the first to adapt to developments in the global environment. Teachers must understand the value of professional development, which is a variety of formal and informal tasks and opportunities offered to teachers to engage, encounter, and effectively utilize teaching and learning outcomes, both within and outside of the school environment, with the goal of improving teaching knowledge and skills. This will help students' perspectives and skills, as well as prepare them for a better future (Jackson & Davis, 2000). According to the Canadian National Council of Teachers of English (NCTE), individuals in today's world have 21<sup>st</sup> century skills such as problem solving, technological literacy, the ability to work collaboratively in different cultural environments, the ability to analyze and evaluate different sources of information, and critical thinking. must have these skills (Perry, Stallworth, and Fink, 2013). Considering the necessity of including 21<sup>st</sup> century skills at every stage of the education system and taking these skills as learning outcomes, it is clear that especially teacher training institutions and teachers working in the field should acquire these skills and include them in their learning environments. 21<sup>st</sup> century skills such as lifelong learning, entrepreneurship, problem solving, collaborative work, creativity, being productive, acting ethically, effective communication, leadership, renewal, taking responsibility and critical thinking can be counted among the skills that teachers must have.

In order to teach effectively in the twenty-first century, one must be aware of the concepts and ideas surrounding 21<sup>st</sup> century skills and how to apply them to the classroom. This allows teachers to integrate these abilities into their lessons and increase student awareness of them. Realizing the value of these 21<sup>st</sup> century skills, many countries have begun to implement numerous educational reforms, including curriculum adaptation, instruction modifications, and assessment reforms, to better prepare students for better lives and careers in the twenty-first century.

Since teachers are the most important components of the educational system, it is imperative that they are aware of these skills and make the necessary recognition in order to determine the extent to which these 21<sup>st</sup> century skills are supported and beneficial, as well as to identify any gaps that may exist between their real instructional techniques and beliefs. Without a question, teachers and students alike need to incorporate 21<sup>st</sup> century skills into all facets of their lives. Teachers are also the world's best practitioners in this regard.

According to the Partnership of 21<sup>st</sup> Century Skills, a successful teacher must prepare their students for life and the workplace. As a result, educators must understand that students must be flexible and able to adjust to varying circumstances. They also need to be able to manage their time well and set their own goals, develop their self-confidence to work independently, and be able to make decisions for themselves. As a result, in order to assist their students to learn more effectively, instructors should master the new technologies, skill sets, and prerequisites as well as how to effectively participate in and observe this changing environment.

According to Handayani (2017), education in schools is not merely about a traditional teaching environment where teachers are the sole repository of knowledge. Rather, pupils should be prepared for the 21<sup>st</sup> century and given the skills they need to succeed in it. This assertion supports the idea that English language instructors play a crucial part in their students' education since teaching and learning the language effectively need a large amount of work. In order to accommodate personal differences among students, successful EFL instructors should therefore be aware of the theoretical basis, personality traits, skills, and competencies associated with the twenty-first century and incorporate cutting-edge teaching strategies and activities like modeling, guidance, scaffolding, reflective activities, and investigation.

It is imperative that educators continually remain lifelong learners, concerned not just with improving their academic credentials but also with fortifying the values that are intrinsic to their line of work, especially emotional intelligence. Humanism should also continue to direct

the practicum of English language teachers since it gives them a self-reliant perspective that is based on accountability to both themselves and their students. Teaching professionals should constantly remember that personal characteristics and instructional competence attributes need to be balanced appropriately. In a similar spirit, EFL instructors should be aware of their students' worldviews and rationally incorporate them into their lesson plans as they have the chance to teach not just language but culture as well.

It is evident that programs to prepare teachers set the stage for 21<sup>st</sup> century skill training, which then spreads to classrooms and schools. Training instructors to incorporate 21<sup>st</sup> century abilities into their lectures and eventually have an impact on students is the goal of a successful program for developing 21<sup>st</sup> century skills. 21<sup>st</sup> century instructional settings, according to Koehler and Mishra (2014), foster professional learning communities that let educators work together, exchange techniques that integrate 21<sup>st</sup> century skills into instruction, and give students access to 21<sup>st</sup> century contexts that are relevant to their daily lives.

Teacher preparation programs serve as the foundation for training in 21<sup>st</sup> century competencies. It necessitates educating educators of the future to engage with learners. The only thing left to do is integrate these abilities into the classroom once instructors are ready to engage with the evolving demands of today's pupils thanks to 21<sup>st</sup> century talents. Consequently, educators need to be aware of 21<sup>st</sup> century skills and integrate them into their own teaching methods. As a result, educators in particular need to strictly adhere to 21<sup>st</sup> century skills and apply them to language instruction. Participation in professional development courses for teachers is required of both novice and veteran teachers. These programs offer the learning experiences needed to equip educators with collaborative teaching strategies, technology, and assessments of 21<sup>st</sup> century skills for successful use in the classroom.

### **Previous Studies Related to 21<sup>st</sup> Century Skills of EFL Instructors**

There is already a substantial amount of research on equipping in-service teachers with 21<sup>st</sup> century learning and skill sets through professional development, with the 4Cs being by

far the most appreciated. The studies related to the in-service EFL instructor and their competence of 21<sup>st</sup> century skills will be presented here in time order.

Due to the paucity of research on the methods utilized in education to foster 21<sup>st</sup> century skills as well as the opinions of educators over how they should impart these talents. Wilcox, et al. (2017)'s study set out to find out how much teachers tried to help students acquire 21<sup>st</sup> century skills in the classroom (Attempt), how much they thought students learned those skills in class (Belief), and how much they thought they assessed these skills in their students (Assessment) from a college in the United States' Mid-East Atlantic area. The findings of an exploratory study using multiple regression statistical method showed that faculty frequency of instruction for students' 21<sup>st</sup> Century Skills could be strongly predicted by the combination of all three characteristics. According to the findings, almost one-third of the participants in the classes they observed regularly educate 21<sup>st</sup>-century skills. Furthermore, a very strong association was discovered between the teaching of Collaboration, and the skills Global and Local Connections and the teachers' perceptions (in their words attempt, belief, assessment). On the other side, it was discovered that classroom practices placed less emphasis on using technology as a learning aid.

Related to the pre-service teachers 21<sup>st</sup> century skills a study by Bedir (2019) sought to investigate the beliefs and perceptions of teacher candidates enrolled in the ELT department regarding the twenty-first century learning and innovation skills, particularly with regard to the 4Cs, which include critical, creative, collaborative, and communication abilities. 124 English teacher candidates, aged 22 to 24, who were enrolled at a state university in Turkiye's education faculty made up the study's sample group. The data gathered from the study were collected via employing a questionnaire that contained semi-structured interviews and both open-ended questions. Semi-structured interviews and a designed questionnaire with questions that are both closed and open-ended were utilized to gather data. The findings demonstrated that while English teacher applicants had very favorable views about 21<sup>st</sup> century learning, their levels of 4Cs awareness were only modest. Furthermore, the results of

the interviews also showed that although English teacher candidates thought the 4Cs were beneficial to their professional growth, they thought the national curriculum and testing should not place as much emphasis on the 4Cs. In other words, they argued that the curriculum's courses lacked the context required for them to properly employ educational technology for both teaching and learning.

The goal of Şahin and Han's (2020) study was to find out how English instructors felt about teaching 21<sup>st</sup> century skills. Data for the study were gathered using qualitative as well as quantitative techniques, with 56 English instructors from various school kinds participating. To collect quantitative data, as an instrument a survey was utilized to find out the variations in the working environment and teaching experience of English teachers, along with the technological resources that they employ in the classroom. To gather qualitative data, eight participants were interviewed using a semi-structured approach, which served to confirm the findings from the quantitative study. Both quantitative and qualitative findings indicated that English instructors have good attitudes on utilizing technology in the classroom and 21<sup>st</sup> century abilities. Qualitative results indicated that most English teachers use technology and 21<sup>st</sup> century skills to engage students, promote teamwork, spark their interest in the subject matter being taught, as well as clarify and reinforce the material taught. Quantitative results indicated that English instructors have a favorable view toward both 21<sup>st</sup> century skills and the incorporation of technological resources in their teaching.

Siregar .et al (2020) meant to It is well known in the educational community that training highly trained teachers with all of the fundamental pedagogical competences is of utmost importance. The goal of this study is to examine the views and desires of EFL instructors on pedagogical competency in the twenty-first century. To regain a credible grasp of the issue, a case study methodology was employed in the qualitative investigation. The required information was gathered using a five-Likert scale questionnaire and a semi-structured interview. The purposefully selected informants provided information about their knowledge and level of discomfort with the study's topic. The findings showed that instructors believed

that the main characteristic of 21<sup>st</sup>-century learning was the quick advancement of knowledge and technology, which is advantageous for providing more thorough instruction. Furthermore, they believed that the phrase "21<sup>st</sup>-century pedagogical competence" mostly referred to how educators integrate technology into the classroom and support students' creativity because of the abundance of readily available material that enhances students' proficiency. To keep teachers informed about any changes, innovations, and breakthroughs in education, it is advised to progressively offer more training and instruction regarding addressing 21<sup>st</sup>-century education.

In a similar vein, in order to better understand 21<sup>st</sup> century learning and innovation skills—also known as communication, collaboration, critical thinking, and creativity skills (4Cs)—Demirkol-Oral and İnözü (2021) aimed to investigate Turkish English language teachers' awareness, motivation, institutional, and real-life instructional practices. To this end, participants were chosen from among the 26 Turkish English language instructors employed at the Foreign Language Department of a state university in Türkiye. A mixed method descriptive case study was performed in order to proceed with the research project. Interviews and a questionnaire (a feedback instrument) were used to collect data. The study's findings demonstrated that teachers' knowledge of the theoretical underpinnings of 21<sup>st</sup> century abilities and their branches as they related to classroom procedures was insufficient. Regarding their instructional strategies, the majority of those surveyed indicated that they concentrated on collaboration as well as communication techniques when asked which of the four Cs ought to be utilized during lessons the most. The teachers also mentioned that the university was limiting them to teaching only the established curriculum sections, which presented difficulties for them when incorporating the 4C skills into their courses. Because of this, the curriculum limited the amount of time students may practice the 21<sup>st</sup>-century 4Cs without taking instructor punctuality into account. Nonetheless, instructors would be prepared to incorporate the 4Cs into their lessons if they received administrative assistance in the form of specific syllabuses and instructional support to fill in their knowledge gaps on the 21<sup>st</sup> century 4Cs. In this regard,

teachers are hesitant to encourage 21<sup>st</sup> century skills, 4Cs in this context, even while educational parties acknowledge their significance. Finally, it was discovered that narrative activities, sessions for brainstorming, group and pair works, and debates are the most often used activities that promote 4Cs in the classroom.

Noting that there is not much research on how teachers' awareness affects their students' acquisition of 21<sup>st</sup> century skills, Mehdaoui and Benabed (2022), decided to study this issue in depth. The aim of their study is to investigate the level of knowledge of 21<sup>st</sup>-century skills among Algerian EFL university lecturers. By examining their level of self-awareness, one may determine the extent of how well they are adaptable. It will also clarify the seeming discrepancy in educational success between students majoring in English and their peers at the time. In order to collect data for the study, 13 English language instructors from Ibn Khaldoun University of Tiaret volunteered. A questionnaire was used to collect qualitative as well as quantitative information. The results showed a relationship between teachers' preparedness to implement 21<sup>st</sup> century skills in the classroom and their understanding of these abilities. Researchers came to some important conclusions and recommended that teachers must overcome many important pedagogical challenges, such as large class sizes, a lack of teacher preparation, and a dearth of technology and instructional tools, before they can completely incorporate 21<sup>st</sup> century skills into the teaching environment.

In their study, Yeni and Can (2022) sought to ascertain if foreign language teachers' opinions of their proficiency with educational technology and material development are enhanced by the "21<sup>st</sup> Century Skills Material Design Teacher Training and Professional Development Program." 33 English teachers took part in this study with the idea that by creating their own digital resources for teaching foreign languages, educators may become more familiar with 21<sup>st</sup> century skills and how to use them in the classroom. Istanbul University established an eight-week training course for teachers with this goal in mind in order to carry out the study. Participants completed a questionnaire both prior to and following the eight-week training program in order to gauge changes in their perceptions. In order to quantify the

changes in perception, a questionnaire was given to the participants prior to and following the eight-week training. Structured interviews were also held with the participants to gather further information. As a result, it has been demonstrated that this type of strategy instruction is beneficial for the development of teachers' competencies on how to teach technology and how to create material of 21<sup>st</sup> century skills.

Lastly, Eker Uka & Bedir's study from 2023 examined how English language teachers perceived and used 21<sup>st</sup>-century learning and innovation skills in their classes. With 105 English instructors participating in the quantitative part of the research and 10 in the qualitative phase, the study used a combination of quantitative and qualitative techniques to collect data. The results of the study demonstrated that the participants recognized the importance of 21<sup>st</sup>-century skills in English instruction and learning. Despite their awareness, they require assistance from the government and their superiors. They need to broaden their viewpoint as well as their understanding of when and how to employ these skills.

### **Assessment and Types of It**

More than simply measurement comes into assessment. That is to say, in addition to methodically gathering and examining data (i.e., measurement), it also entails assessing and relying on data on learners' performance in respect to their learning objectives. Therefore, measurement may be seen as a step before or a particular kind of assessment. Multiple parties involved such as teachers, administrators, or students may utilize assessment information for a number of goals, including to assist enhance learning outcomes, programs, and services as well as to develop accountability. Additionally, a variety of methods can be used considering the various goals. For instance, if your objective was to improve someone's learning and you wanted to assess their progress toward a learning objective, you could give them a quiz, look through their portfolio of work, ask the student to evaluate their progress, or look over journal entries, etc. The knowledge gleaned from these evaluations would then need to be put to use in order to direct her future educational endeavors.



A very important variable to be considered is who is doing the assessment. It is frequently the teacher. However, if a desired educational objective is to generate self-directed and productive lifelong learners, then self-assessment may be a valid choice as well as a crucial ability. Supporting (evaluating) knowledge of particular objectives and learners' progress toward them are important components of encouraging learners' self-assessment in connection to defining realistic learning goals. Supporting learners' metacognitive abilities of reflection and revision is another aspect of it. As an alternative, peer evaluation is people working together to clarify, solve, or comprehend a job or problem. Promoting collaborative learning has a number of advantages, including cognitive, social, and motivational ones. A successful teacher should place a strong emphasis on encouraging equitable and frequent group engagement, providing everyone the chance to discuss ideas, learn novel techniques, and refine higher-level thinking abilities. However, as collaboration becomes a more significant component of learning in the twenty-first century, it brings with it not only opportunities but also significant assessment challenges that will require creative research to address (Shute & Becker, 2010).

There is always some uncertainty in inferences drawn from assessments because assessment is a process used to gather information in relation to a known objective and because inferences are drawn about what an individual knows based on responses to assessment tasks. Therefore, gathering accurate data on the learners and reducing uncertainty or mistakes are important goals in educational assessment. Reliability and validity are therefore important factors in assessment quality. In general, an oral exam or a written exam are used to conduct assessments properly. No matter which method you prefer, the test must be reliable. As stated by Sax (1980), It is crucial to understand the term reliability for two reasons. In the first hand, to follow the principles of the test construct, the concept of reliability should be understood very clearly. Since no inferences can be obtained from a test with low reliability, it is a waste of time and effort for both instructors and pupils. In addition, taking into account the reliability of measurements is important while choosing a test. Using unreliable

assessments is not an alternative to giving students random scores as it is not better than that. Sax (1980) described reliability as the degree to which the test result is consistent and provides clear information. Measurements are considered reliable when they capture the "true" instead of random characteristics of the skill being tested. Thus, a reliable test is one that assesses things repeatedly. If someone takes a test on one day or the next, it is certain that they will receive about the same result on a reliable exam; nevertheless, on an unreliable test, the score is fairly likely to vary depending on the day it is taken.

Another term that goes hand in hand with reliability and is meaningful to mention here is validity. Validity generally refers to how well an assessment measures what it is intended to evaluate and how correctly test findings are used to draw conclusions. For instance, if you offered learners a language test to complete in order to evaluate their ability to solve physics problems, the evaluation would not be accurate.

In order to understand the assessment types i.e. formative and summative, a very meaningful quotation should be stated here in the words of Robert Stake "When the cook tastes the soup, that's formative; when the guests taste the soup, that's summative". This explains the role of students in the process of assessment processes, in other words, if the learners take role in their own assessment, then it is named formative assessment. However, when the assessment is just the responsibility of the teacher which is conducted at the end of learning to check whether the aim is reached or not, then it is called summative assessment, each of which has its own strengths and weaknesses. Both of these expressions are the most frequently encountered ones in the literature, and the educational goal determines the decision and implementation of a particular style of evaluation. Summative evaluation, commonly referred to as assessment of learning, is frequently used in classrooms. These are only slightly useful for assisting individual learning, but they may be highly helpful for accountability purposes such as assessments for grading. Learner-centered measurement approaches, usually referred to as assessment for learning, on the other hand, primarily count on formative

assessment. Formative assessments are excellent for directing teaching and fostering individual learning, but they should not be used for making large-scale, high-stakes judgments.

Utilizing assessment data is essential to the concept: for assessment results to be regarded as formative, they must be used to guide education in the future. By finding and filling in any gaps between the learners' present status and learning objectives, formative assessment helps to map out the learning path ahead of time rather than looking backward at what has already been learnt. Furthermore, because well-designed formative assessments incorporate learning and cognitive concepts, they may serve as more than just a source of data that guides future instruction and learning. Formative assessment may help students become actors in their own learning by establishing clear learning objectives and allowing them to evaluate themselves. This will increase students' motivation, autonomy, and capacity for self-awareness. Similarly, these features may be added to accountability tests to improve their educational potential.

### **Assessment of the 21<sup>st</sup> Century Skills**

We teach students but do we know how much they learn or how well did they learn? During the 20<sup>th</sup> century, the response to these questions was a peculiar mix of subjective evaluations from teachers in the classroom and results on standardized, norm-referenced examinations. Norm-referenced tests became very popular between 1990 and 2010. The role of tests has changed and got a prominent place in academic achievement, which led to an increase in the usage of exams that are tied to academic criteria throughout the world. When we look at the questions above, we got the answer now that a test result that ostensibly demonstrates pupils' "proficiency" in fulfilling academic norms. However, in time it started to be questioned whether a standardized test provides an adequate response to the inquiry, "What is the proof of student learning?"

The development of "the complete person," defined as a set of values, ethics, and attitudes consistent with national identity, as well as the growth of pupils' social-emotional traits

and cognitive abilities, are objectives that many education ministries pledge to. With the introduction of the curriculum in the 21<sup>st</sup> century, an awareness has been necessitated about what students must learn and know how to perform, as well as what teachers must instruct and know how to evaluate. Information from assessments must be in line with the reasons for which it will be used because one of the main justifications for assessment is to enhance student educational outcomes.

Current assessments serve as a reflection of the common pedagogical and assessment strategies used in classrooms, but they also play a significant role in determining what students learn and how it is taught. The efficacy of teachers, schools, and entire educational systems is evaluated through national exams. The results of these examinations are frequently tied to incentives and penalties for schools and instructors. What is evaluated, especially on high-stakes tests, determines what is taught, how it is taught, and what is learnt regardless of what the official curriculum states, what instructors are trained to do, or what students desire to learn. The focus of the need to alter assessment is on these summative, high-stakes tests that determine kids' futures, set incentives and penalties for schools and instructors, and affect classroom and instructional practices.

What occurs in schools and what occurs outside of schools are very different, both in terms of assessments and the rest of the educational system. The usage of educational strategies aimed at instructing complicated thinking and problem-solving declines when high-stakes examinations are prioritized in schools. Students are not adequately prepared for the challenges of the 21<sup>st</sup> century due to this disconnect between classroom assessments and the real world. Furthermore, the competences and skills required by the profession and society in the 21<sup>st</sup> century are not entirely captured by these old examinations (Pellegrino, Chudowsky, & Glaser, 2004).

The abilities that are thought to be facilitated and developed by the regular use of new, technologically based learning settings are not completely captured by traditional evaluations. Much has been discovered about how teachers may incorporate technology into regular

classroom activities and how students can utilize them to collaborate in teams and put their extensive knowledge of academic subjects and ICT tools to use.

The role of knowledge about themes and issues in a field or discipline that is necessary to complete activities and technologically driven elements is a problem for large-scale assessments of the twenty-first century. It is not possible for extensive evaluations of 21<sup>st</sup>-century abilities to presume that every student has acquired a certain body of knowledge. Thankfully, evaluations of 21<sup>st</sup>-century abilities in educational settings are able to pinpoint the subject matter that these skills will be positioned inside. If problem-solving and critical-thinking abilities are now evaluated and assessed in academic courses at all, they are usually presented as parts of subject-matter accomplishment (e.g., physics inquiry, mathematical problem solving), not as separate 21<sup>st</sup>-century skills. Additionally, students may utilize basic or advanced technologies in both official and informal learning environments, but their technological competence is seldom assessed or documented. As a result, in order to assess and provide insight on students' progress in developing twenty-first-century skills, assessments of their performance that are pertinent to them must be designed in a way that clearly identifies the knowledge and abilities that must be assessed and recorded for each skill; these can be both procedures like communication or problem-solving, or they can focus on evaluating students' application of technologies in a variety of academic and real-world contexts (Scarmadalia, Bransford, Kozma & Quellmalz, 2012). It requires testing learners' ability to use both simple and advanced ICT tools. Furthermore, direct evaluation of learners' capacity to pick up and use new technologies will be necessary to gauge their adaptive expertise—the capacity to apply methods and information from past experiences to new situations.

The functions of summative and formative assessment are frequently differentiated when the assessment is on the agenda. It also acts as a catalyst for instruction and learning. Authenticity of the assessment is crucial for promoting learning and skill building since we are concerned with the results' potential for prediction. In addition, utilizing various evaluation

techniques has beneficial effects on people's achievement and attitudes toward learning. Evaluation offers invaluable information about the skills that pupils have learned. Therefore, it may be said that implementing a variety of evaluations to enhance students' abilities and comprehension will be crucial for evaluating teachers' views and competences.

In spite of widespread agreement that 21<sup>st</sup> century skills are essential for preparing the next generation to live productive lives, education institutions have underperformed in implementing reforms to their curriculum, pedagogies, and assessment methods. The techniques used in classroom assessments are no more advanced or effective than those used in large-scale assessments. Teachers' lack of knowledge of twenty-first century skills, how to teach them, and how to test them are a clue that there aren't any clear guidelines regarding how to assess at the school level and also national level. The gap between desire and execution in the actual curriculum should be changed with an emphasis on twenty-first century competencies. Similar to this aim, there is a need for a variety of tests that aim to measure these abilities, but the belief ranges from relying on conventional techniques to exploring the potential of cutting-edge techniques for data collection, interpretation, and usage.

The distinguishing feature of a competence for the twenty-first century is the ability of a person or group of people to apply that competency in and across novel conditions, especially those connected to or occurring within technological contexts. The sheer nature of this attribute makes evaluation difficult. Assessment techniques can include both early and more evolved competence for well-known skills like reading. Our current assessment technologies appear to be able to encapsulate some early subskills for complex skills that are less well-known, but are less able to capture the more developed competencies because these latter are exercised in unstructured ways and in environments that do not provide the opportunity for reliable data gathering, coding, or scoring.

We assume that the complex skill, which would be responsible for the person's performance in real-life circumstances, will be able to predict the behaviors collected for the early kinds of competence. It raises doubts about our ability to quantify the complete spectrum

of competence since we are unable to include the more sophisticated abilities. This poses a serious danger to the validity of instruments. The extent to which what is measured affects all elements of the skill is another crucial factor. For instance, objectively measuring the social domains' subskills has proven difficult when measuring collaborative problem solving, despite other components of the concept being accurately measured by PISA, OECD and ATC21S (Care & Kim, 2018).

When the assessment is the issue, what comes together is the validity, which is highly influenced by authenticity. A strong emphasis should be placed on authenticity in order to highlight how current assessments excite, capture, score, and evaluate in ways that might provide conforming proof to the validity. Although it has significant importance, the requirement for authenticity in the context of classroom teaching and learning is analogous—and also rigorous. The range of assessment tools shows both conventional and cutting-edge methods for evaluating twenty-first century abilities. They vary from elaborate computer-based task settings where students may demonstrate a range of talents to Likert scale self-ratings of values and beliefs. Do we truly have any signs of the desired skills? Explorations of the tools' structural organization make up the majority of available technical knowledge on the tools under consideration. This is inadequate to help us make decisions about how much we can depend on assessment results to appreciate students' skills or preparedness to learn. Therefore, in every type of assessment it is controversial to find a solution to the question “which type of assessment we need” and reach a consensus about it.

At the dawn of the twenty-first century, there were other notable societal changes that showed how individuals today access, utilize, and produce information and knowledge quite differently than they did in earlier decades, again in large part because of the pervasiveness of ICT. ICT's widespread use has altered how people obtain information, interact with others, use information, and produce fresh information. People use the internet to hunt for work, find partners, keep in touch with family, shop, book flights, run for office, raise money, exchange images and videos, and keep blogs. Following the changes in life, students also enter schools

with fresh ICT competencies and abilities, but they are rarely used in the official curriculum and are unable to use them to work together to tackle challenging challenges in the real world.

Over the past several decades, there have been significant changes in businesses, whole economies, and society as a whole, many of which have been made possible by the widespread use of ICT. However, educational systems have lagged in their response. Curriculum, pedagogy, school structure, and assessment are largely unchanged from what they were at the start of the 20<sup>th</sup> century. Students in schools meet in structured classrooms at set times, teachers cover the required material by lecturing in front of the class while students listen, students work independently and replicate this knowledge on assessments, and their use of ICT is minimal. In contrast, people outside of schools work flexibly in teams, use a variety of digital tools and resources to solve problems, and create new ideas and products. Additionally, there are novel variations of technologically advanced classrooms and formative evaluations that include pupils' collaborative approach to problem-solving and output of artistic creations. However, utilizing these new models is still uncommon, in part because conventional assessments are insufficient to quantify the results of their use in the classroom.

A nationwide evaluation of student accomplishment is common in many nations. There are also some international tests that evaluate people. The International Association for the Evaluation of Educational Achievement's (IEA) Trends in Mathematics and Science Study (TIMSS) and the OECD's PISA are the two main international assessments. PISA examines 15-year-olds and evaluates their comprehension of reading, maths, and science in order to address the difficulties of young people's daily lives. All of these large-scale examinations are primarily concerned with measuring student topic knowledge. None presently make use of ICT technologies, which are commonplace in the job life and daily life. However, aside from evaluations of problem-solving and ICT literacy, there haven't been any extensive uses of ICT-based assessments of 21<sup>st</sup> century abilities due to a range of methodological and technological limitations. Working with a variety of parties to promote and support the development of ICT-



based assessments for the complete spectrum of 21<sup>st</sup> century skills within the context of academic topics and real-world issues is the need of this age.

Although it may seem difficult, many of the extremely sophisticated information and abilities that are part of what are becoming referred to as 21<sup>st</sup> century skills may be evaluated. It should be emphasized that the evaluation of these skills are extremely intricate. They are difficult to evaluate using straightforward multiple-choice or paper-and-pencil tests. Some issues are important to consider while assessing 21<sup>st</sup> century skills. Firstly, empirical validation attempts are a crucial step. Additionally, we need to learn more about the relationships between various assessments of 21<sup>st</sup> century abilities and more universal factors like general mental capacity or advanced academic skills. The kind of abilities tested by these tests and those listed as 21<sup>st</sup> century skills must also progressively be integrated into more general evaluations of academic and subject-matter knowledge and skills. It is also obvious that technology plays a key role in how these measures are delivered, and that technologically administered and maybe technologically modified measures may very well assist test developers in evaluating these complicated constructions (Geisinger, 2016).

What further extensive usage might these tests be put to? There are several alternatives. They can be incorporated into curriculum assessments, particularly in cases where 21<sup>st</sup> century skills have been explicitly taught. They may be utilized most effectively as outcomes evaluations when programs are being evaluated given the levels of evidence-centered design that they employed, particularly if such analyses are carried out for formative purposes. If preferred, they can be used in comparisons across schools, states, and the country. However, it is probably not yet justifiable to utilize them as selection criteria for either further education or employment. Prior to such usage, it would be prudent to do further empirical validation study, including studies on the fairness among various groups. To meet these new necessary abilities, instruction must also undergo significant modification.

As a result, academia, nonprofit groups, and private-sector businesses all over the world have created theoretical frameworks that define and explain 21<sup>st</sup> century abilities and

explain their significance. For instance, the Partnership for 21<sup>st</sup> century skills, the Organization for Economic Cooperation and Development, and the Assessment and Teaching of 21<sup>st</sup> century skills community have all built elaborate frameworks that concentrate on a broad range of 21<sup>st</sup> century skills. However, when it comes to measuring these skills, many questions regarding the tasks that adequately reflect the theoretical frameworks, the meaningful and effective assessment of these skills, the scaling and scoring of performance, and the implications and usefulness of these assessments still go pretty much entirely unattended.

Care et al. (2016) had a study which is a step towards the application of the assessment of one of these skills. A conceptualization of 21<sup>st</sup> century skills and the creation of assessment tasks were part of the research and development strategy for the Assessment and Teaching of 21<sup>st</sup> Century Skills (ATC21STM) project. The defining of 21<sup>st</sup> century skills was the main topic of conceptualization. In their article, one of these skills—collaborative problem solving—is examined in detail, from its description and classification of subskills through the construction of a technique for its evaluation. Hesse et al. (2015) underline that individuals may bring to the work diverse resources, information, and unique expertise that is not available to others in order to tackle a complicated challenge against the evaluation background of the ATC21S project. For the people, the challenge itself creates a shared objective. Working with others becomes crucial for success when there is no way for one person to address the issue alone. In response to an examination of the issue domain, this cooperation integrates several techniques for combining resources. Their study was based on the above-mentioned literature. The purpose of the assessment activities in their study is to provide teachers with formative feedback that will help them differentiate instruction for their students based on levels of ability within and across groups of students.

According to the latest practices in testing and assessment, in order to get a thorough understanding of students' abilities, it is crucial to evaluate students using a variety of sources for any subject area involving 21<sup>st</sup> Century Skills (Lai & Viering, 2012). In their review of studies on 21<sup>st</sup> Century Skills assessment, Lai and Viering (2012) included four major types of

assessments that are frequently used to assess students' proficiency in these areas: observational measures, global rating scales, standardized exams, and student self-reports. While both student self-reports and global ratings scales are survey-style evaluations used to score students' competence, they differ in the person who makes the rating. Students fill out self-reports about their skills, and parents or teachers complete global ratings scales. These kinds of tools work well for evaluating students' perceived drive, inventiveness, and interest. Although responses that are socially acceptable and positive response biases can affect both self-reports and global rating scales, they are more common when children complete self-reports than when adults complete global rating scales about children. These two evaluation techniques are said to be simple to apply, economical, practical, and capable of scoring a variety of actions or traits.

Standardized tests have been employed to assess 21<sup>st</sup>-century skills including reasoning, creativity, critical thinking, interpreting arguments, and drawing inferences (Lai & Viering, 2012). Standardized evaluations of 21<sup>st</sup> century skills use both multiple-choice and open-ended items. Although multiple-choice questions facilitate fast and inexpensive assessment of a wider range of subjects, its capacity to adequately evaluate 21<sup>st</sup> Century Skills, such as critical thinking or creativity in students, is constrained (Sternberg, 2006).

As one of the so-called "21<sup>st</sup> century skills," creativity is widely considered as a key educational objective. Assessment of creativity is the focus of Lucas's (2016) study. It examines how to define and monitor how pupils develop their creativity from the standpoint of formative assessment. Two advantages are noted: (a) when instructors comprehend creativity, they are accordingly more effective at encouraging it in students; and (b) when students comprehend creativity better, they are better equipped to create and monitor the creation of their own creative habits of mind. The model of creativity presented in this article was tested with teachers in England by the Centre for Real-World Learning (CRL) at the University of Winchester, and it is based on five Creative Habits of Mind (CHoM). Each of the five basic creative habits in our paradigm includes three supporting behaviors: inquisitive, imaginative,

persistent, collaborative and disciplined. He applied the Appreciative Inquiry approach (Cooperrider & Whitney, 2005) as it is a method that has been utilized with some degree of success and preferred formative assessment. In a total of 12 schools, two field experiments were conducted to investigate two of our five Creative Habits of Mind. The first was a proof of concept that was intended to demonstrate how simple or complex it was for teachers to map a student onto the framework, as well as how simple or complex it was for teachers to select and gather appropriate decision-making evidence and data, as well as what the sticking points were and how the process could be improved. The second trial concentrated on how each student rated himself. It was intended to gauge how much pupils believed they could evaluate their own "imagination" and whether they could offer adequate evidence to back up their claims. In conclusion, the field trials demonstrated that, with the five habits demonstrating face validity, it is operationally viable for instructors and students to follow the growth of students' creativity. Lucas (2016) has demonstrated in a small-scale experiment that it is practically feasible to define creativity in ways that instructors deem legitimate and practical. In two field experiments, he has shown that instructors and students are at least technically capable of starting the difficult process of evaluating the development of the creative habits of mind, which are a component of our five-dimensional model of creativity. Lastly, his study has also brought to light some significant chances to advance our knowledge of how measurement might be used in schools to support multidisciplinary subjects like creativity.

While there is a lot of literature on the significance of including outstanding evaluations of 21<sup>st</sup> Century Skills (Lai & Viering, 2012), there has been very little published about how to create such assessments. Rather, it is thought to be difficult to precisely and accurately evaluate these abilities in a classroom setting or on a wider scale (Greenstein, 2012). In order to achieve the objective of measuring student development through 21<sup>st</sup> Century Skills assessments of the highest quality, it is imperative that assessment instruments yield trustworthy and valid results based on several pieces of validity evidence. There is no doubt the significance of employing a variety of assessment techniques to precisely measure students'

skill levels. If the goal is to have a meaningful and accurate depiction of student skill level, high-quality assessments that yield valid and reliable outcomes are crucial, in addition to employing numerous measures (Lai & Viering, 2012). For those who are interested in tracking students' progress in 21<sup>st</sup> century skills as time passes, the 21<sup>st</sup> century skills assessment is a suitable tool to add to their assessment toolkit.

Being not very abundantly preferred in the EFL environment, the assessment of 21<sup>st</sup> skills still has found some place for itself. The 21<sup>st</sup> century competencies deal with interpersonal and intrapersonal competencies as well as cognitive competencies in critical thinking, analysis, and problem solving, which have been seen as key indicators for success due to the changing economic, technological, and social contexts in the 21<sup>st</sup> century. In other words, they encompass a variety of activities, including performance challenges, using digital tools, utilizing 21<sup>st</sup> century skills, and communicating with others around the world. It could be more challenging to evaluate 21<sup>st</sup> century skills than factual information. Multiple choice or gap-filling exercises cannot be used to evaluate abilities like cooperation, collaboration, or critical thinking, for example. In order to quantify such talents, newer tests with new requirements for problem-solving or critical thinking are required. High stakes examinations can always be replaced by performance assessments, but this is a subjective and time-consuming alternative. The four abilities may frequently be evaluated via performance-based evaluation (reading, writing, listening, and speaking). This type of evaluation makes it simple to assess how well students used structures, relevant vocabulary words, and functions throughout a performance assignment. But even if it can reveal what students already know and what they can do with it, it is still unclear whether this kind of evaluation is sufficient to evaluate things like their critical thinking and problem-solving abilities. Thankfully, there are other options for evaluation, like journals, portfolios, projects, self- and peer-assessment, available.

Richer, performance- and curriculum-based assessments can be used to promote the development and evaluation of 21<sup>st</sup> century capabilities instead of standardized, on-demand, end-of-year examinations that are readily scored and quantified for accountability reasons. Any

system to assist student learning should not just include large-scale evaluations. In general, assessments have a tendency to include project-based learning into the curriculum while supporting more generally applicable, regionally customized criteria for assessment and engage students in significant, real-world performances. To reflect the needs of an information and innovation era and to make use of 21<sup>st</sup> century technologies, these tests should be completely modernized. This is due to the fact that technology may create new, cost-effective opportunities for the creation and deployment of a new generation of assessments in accordance with the need for students to be media literate and capable of harnessing their potential.

To be more precise, according to Binkley et al. (2010), evaluations and standards for the twenty-first century should:

- be in line with the formulation of important goals for the twenty-first century,;
- include flexibility and unpredictability,
- be mostly dependent on performance,
- enhance learning and teaching,
- demonstrate what the pupils are thinking,
- assess students fairly
- utilize assessment data that give accurate and trustworthy information,
- get results from tests which are both generalizable and responsive to instructional needs,
- provide information that may be used, and give all intended users useful and constructive feedback.
- give input that is useful to all target purposes.
- bolster student and educator capability.

- be a part of a thorough and cohesive assessment system created to promote the advancement of learning at all levels of the educational hierarchy.

There are some specific assessment procedures that may be used to encourage learning for the twenty-first century in EFL classes. Structured interviews, situational judgment tests, role plays, group work, in-basket activities, work samples, and performance standards/appraisals are among them.

Information and communication technology may be utilized in addition to being used as a tool for traditional assessments to expand the possibility for testing 21<sup>st</sup> century abilities. This is partially attributable to an increase in ICT-based advancements in schools, as students and instructors now have greater access to hardware, software, and broadband Internet connections. New technologies are expanding the number of assessment options and making it easier to conduct both formative and summative evaluations. Today, simulations, e-portfolios, or interactive games may all be used to evaluate pupils. Online peer evaluation systems, adaptive computer feedback, self-assessment, and "semi-automatic systems" that mix instructor, peer, and automated feedback can all support formative assessment. They include student participation in assessments, assessments improved by technology, and evaluations of the use of ICT skills obtained in formal and informal learning situations.

There is a recent study about the assessment of 21<sup>st</sup> century skill in EFL context, written by Asri (2019). The study discusses how to create a 21<sup>st</sup> century evaluation in the context of learning English as a Foreign Language. The evaluation is in line with the six strands of creativity and invention, collaboration and communication, research and information fluency, critical thinking, decision-making, and problem-solving, as well as digital citizenship and technological operations and ideas. There are numerous commonly used evaluation kinds. Asri (2019) created the tests to measure 21<sup>st</sup> century skills which include changing educational practices through influencing curriculum and instruction, focusing public attention on educational issues, evaluating individual student development, and providing information for school accountability. Additionally, different sources of evidence are needed for various

purposes in order to determine the validity of the evaluation. Additionally, the development, administration, and scoring of extensive tests of 21<sup>st</sup> century abilities may be supported by computer-based technologies.

Although the studies related to assessment of 21<sup>st</sup> century skills are not found very commonly in the literature, a review of literature study (Boitshwarelo, Reedy & Billany, 2017) was conducted about the effectiveness of online tools as a 21<sup>st</sup> century assessment tool. Online exams are a common type of online evaluation used in higher education. An examination of online assessments' function in assessing twenty-first century learning is called for by the rise in their use. In order to examine the function of online assessments in higher education, specifically their connection to student learning in a technologically advanced and evolving environment, as well as the problems and difficulties they provide, this research draws on the literature. They draw the conclusion that, when utilized properly, online tests may be useful in evaluating learning in the twenty-first century, and we synthesize the literature to draw up guidelines for optimizing online assessments in the digital age. In order to formulate a set of starting principles for decision-making in regard to the selection and design of online tests within the framework of twenty-first century learning, we have pulled from the literature on online tests. This study indicates that the limits that are visible in the usage of online tests in the digital present are not intrinsic aspects of online tests, but rather a consequence of poorly crafted design, development, and implementation of online tests. We foresee a digital future where online exams are employed when they are appropriate and are optimized for the evaluation of and for twenty-first century learning, using the principles to guide strategic decision-making about them.

### **Studies Related to The Assessment of 21<sup>st</sup> Century Skill**

Hixson, Ravitz, and Whisman (2012) examined how project-based learning affected 24 instructors' opinions on teaching and evaluating 21<sup>st</sup>-century abilities, both those who got project-based learning training and those who did not. They created the 21<sup>st</sup>-century Teaching



and Learning questionnaire with eight distinct skills and a total of 72 items under two dimensions: the frequency of applying practices associated with each skill and the teacher's efficacious beliefs regarding teaching and evaluating these skills. The study's findings reveal that participants' perceptions indicate that, of the 21<sup>st</sup>-century skills, collaboration and critical thinking are the skills that are most frequently used, while the ability to make local and global connections is the least used. Finally, educators reported that while they were competent in imparting these abilities, they felt far less proficient in assessing them. Teachers most frequently stated that they made an effort to acquire the necessary abilities, but they were least likely to say that they could evaluate these talents in an efficient manner. This indicates that in addition to activities that assist students acquire 21<sup>st</sup> century abilities, evaluations that are more directly linked to these competencies and may be used to direct instructors' work with students also need to be advanced.

The emergence of gadgets with Internet connectivity and internationalization in the field of education have made space for the latest findings in 21<sup>st</sup> century learning. In order to succeed in the intricate and international society of today, students in classrooms today employ a variety of educational technology tools to synthesize new information, work cooperatively with peers, solve issues critically, and make wise judgments. As a result of technological advancements, it is becoming more difficult to meet sustainability goals in education. This is because selecting and utilizing the right tool for instruction and education takes time and requires confirmation before being widely used in higher education institutions. In addition, 21<sup>st</sup>-century pupils have innovative teaching methods and are driven by technology. In reaction to these developments, Ramachandiran and Mahmud (2018) attempted to evaluate the 4Cs in the twenty-first learning skills utilizing Padlet, an internet-based virtual discussion board that is becoming growing in popularity in numerous colleges and universities. It is evident that the purpose of this study was to determine the effectiveness of the 4Cs evaluation technique and investigate the degree of student acceptance of Padlet in a virtual interactive learning environment. The 4Cs comprise critical thinking, creativity, cooperation, and communication.

This case study involved 31 undergraduate learners from a Private University. One task integrates all four competencies, and it receives an accurate assessment. The three teams that participated in the examination performed exceptionally well and received the highest scores for the four essential competencies—creativity, critical thinking, communication, and collaboration. It can be claimed that successful evaluations and instructional strategies distinctly promote the goals of the 4Cs for the twenty-first century. Apart from that, the most noticeable skill that the very tech-savvy pupils appear to have is creative thinking. The study's findings also showed that the 4Cs for the undergraduate computing module were effectively evaluated using the Padlet evaluation. The results provide proof that the virtual message board enhances student performance in the classroom and fosters creativity and collaborative learning.

In order to meet the demands of a changing society, which calls for proficiency in skills like communication, problem-solving, and critical thinking, a suburban educational institution in Missouri deliberately incorporated 21<sup>st</sup> century skills into its middle school curriculum. Additionally, the district created tests to gauge these abilities, and it was disclosing the results on student assessment forms. Eisenmenger (2020) examined the district's procedures for both 21<sup>st</sup>-century student development and evaluation in this quantitative thesis. More precisely, she looked at the district's teachers' viewpoints on the value of assessment and integration of 21<sup>st</sup> century skills and examined assessment data to track students' progress in acquiring these abilities. To assess the hypotheses, a two-tailed t-test was performed. Two results that were statistically significant were found. When compared to core material instructors, encore teachers stated that their students solved challenging issues more frequently. This proved to be the first statistically meaningful conclusion. When comparing encore instructors to core topic teachers, the second noteworthy finding was that the former reported teaching interpersonal skills to their students more frequently. The fourth hypothesis was tested using a one-tailed z-test, which turned out to be statistically significant. It demonstrated that between the fall 2018 and spring 2019 semesters showed improvements in the district's pupils' acquisition of 21<sup>st</sup>

century skills. This research has consequences for other educators, school administrators, and school districts, encouraging them to incorporate evaluation and integration of 21<sup>st</sup> century skills into their curricula.

Considering the growing complexity of 21<sup>st</sup>-century abilities, the evaluation procedure must demonstrate how they are applied in unexpected and realistic situations. Irfiana, Purnawarman and Sukyadi (2023) study, the assessment of 21<sup>st</sup>-century competencies in EFL classes by EFL instructors was investigated in this mixed-method study. The study also looked at the difficulties that instructors faced when putting assessment procedures for gauging 21<sup>st</sup>-century skills in foreign language instruction into reality. Six EFL teachers took part in semi-structured interviews to confirm the questionnaire results and pinpoint obstacles to the implementation of the 21<sup>st</sup>-century skills assessment, while 105 Indonesian EFL teachers completed a self-report assessment of the 48-item Likert scale questionnaire. The questionnaire's results showed that EFL instructors in high schools strongly preferred the utilization of technology in the classroom and other 21<sup>st</sup>-century skills like teamwork and critical thinking. Concurrently, establishing local relationships was the 21<sup>st</sup>-century skills practice evaluation that was least generally used. EFL teachers who were questioned said that this may have happened as a result of their ignorance of techniques for assessing 21<sup>st</sup>-century skills. Additionally, data from semi-structured interviews showed that EFL teachers in high schools faced a variety of difficulties while assessing students' 21<sup>st</sup>-century competencies. The curriculum-related problems, student-related issues, and outside barriers were the three main areas of difficulty. The study's findings support the creation of curricula for teacher training, which will help aspiring educators understand assessment practices for 21<sup>st</sup>-century learning. The results of the study also emphasize how important it is to keep EFL teachers informed about the evaluation of current instructional approaches.

One of the many benefits of assessment is that it helps students become aware of their capabilities and weaknesses and involves them in the learning process. Kumar et al. (2023) aimed to investigate the effects of self and peer evaluation activities on the critical thinking,

problem-solving, and self-regulated learning abilities of Iranian EFL learners. Previously, the impacts of peer assessment and self-assessment, the two main types of assessment, have not been examined on the skills of EFL learners in these areas. In order to do this, 75 Iranian EFL students were chosen, and they were split into two experimental groups—the self-assessment group and the peer assessment group—as well as a control group. Subsequently, the students were given three questionnaires that measured their abilities in independent learning, thinking critically, and solving problems as pre-tests. Following that, the first experimental group received education by self-evaluation, while the second experimental group was instructed via peer assessment. A teacher-based assessment training was given to the control group. Three post-tests were given to each group to determine the effects of the intervention on their capacity for independent learning, thinking critically, and also problem-solving abilities after each group had been taught thirteen English conversations. The post-tests of the experimental and the control group differed significantly, according to the one-way ANOVA findings. The outcomes demonstrated that in the post-tests of critical thinking, problem-solving techniques, and self-regulated learning, both experimental groups fared better than the control group. Moreover, the results showed that the experimental groups' post-tests did not differ significantly from one another. It is highly recommended that alternative assessments be given more careful consideration by L2 administrators, curriculum designers, syllabus producers, teacher trainers, and test writers. Through the provision of more stimulating and autonomous instruction in stimulated and continuous learning, the integration of peer and evaluations in language education can assist EFL teachers in providing their students a greater sense of accountability and autonomy.

## **Chapter 3**

### **Methodology**

This chapter includes a detailed presentation and discussion of the research design, participants, data collection, instruments exploited in the process and data analysis methods.

#### **Type of Research**

This study exploits mixed method research design combining both qualitative and quantitative research methods in order to give answer to research questions by mixing quantitative and qualitative data instead of exploiting only one (Creswell, 2013). The justification for combining both types of data in a single research stem from the reality that neither quantitative nor qualitative approaches can accurately represent the specifics and patterns of a given circumstance on their own. According to Green and Caracelli (1997), combining quantitative and qualitative research approaches makes the most of each method's advantages and enables a more thorough analysis. In specific, it is a sequential explanatory approach to mixed method research design, as the quantitative data will be collected and analyzed in the first place, which will be followed by qualitative data collection and analysis phase within one study (Creswell, 2013). In order to better understand research problems through the combination of both qualitative and quantitative techniques instead of using either approach independently, research using mixed methods focuses on collecting, analyzing, and combining data from both qualitative and quantitative sources in a single study or series of studies (Creswell, 2013). To put it another way, combining quantitative and qualitative data and research allows the investigator to fully comprehend the phenomena being studied while also mitigating the drawbacks of using each design independently (Creswell, 2013). Thereby, using a questionnaire to collect quantitative data from in-service EFL instructors about their perception of the 21<sup>st</sup> century skills and their assessment practices regarding their experience level. In addition, complementary data were collected using semi-structured interviews with the

EFL instructors and documents (i.e., alternative assessment tools used in the preparatory classes at universities in Türkiye) as qualitative data.

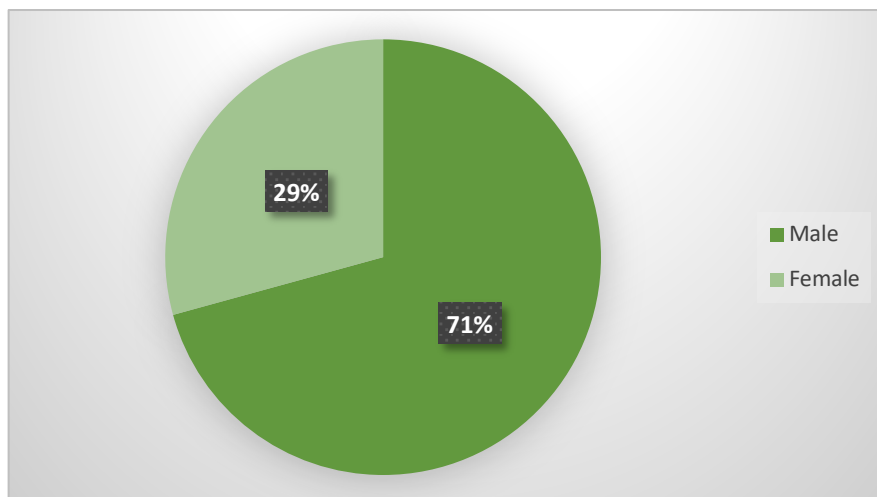
## **Participants**

The population in this research study is in-service English as a Foreign Language instructors in preparatory schools of Türkiye. The participant criteria for the study were English language lecturers working at public and private universities and there were no exclusion criteria. Hence, the participants of the research consist of the instructors of various public and private universities who teach English as a foreign language. Convenience sampling is preferred to determine the sample of the study. The researcher collected data from the participants who are convenient and suitable for her, as stated in the definition of convenience sampling (Mackey & Gass, 2005). According to Saunders et al. (2012), convenience sampling allows for the invitation of all people to participate in the study without the need for explicit criteria for participation. 123 English as a foreign language instructors from the school of foreign languages at 18 public and private institutions in Türkiye answered the questionnaire, 74% of which are from the province of Türkiye, Ankara. 16 of these instructors also took part in the study's qualitative phase. Convenient sampling and participant selection, together with the researcher's nine years of experience as an English language instructor at the same institution, simplify and facilitate the collection of pertinent data on this subject.

Among the 123 participants, 87 instructors were female while 36 of them were male as can be seen from Figure 4. Most of the instructors joined in this study pursued graduate education with the percentages as follows: 28.5% for BA, 50,4% for MA, and 21,1% for PhD. It is also seen that among the undergraduate graduates, the number of those who graduated from the English language teaching department has the highest rate with 73.2%.

## **Figure 4**

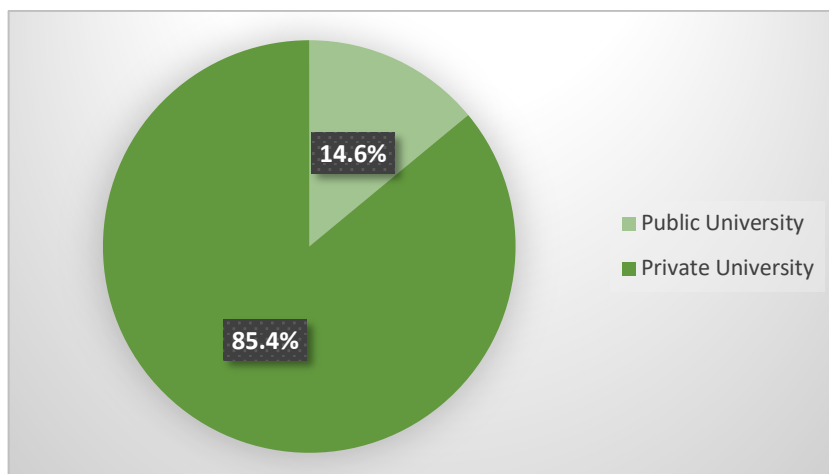
*Gender Distribution of the Participants*



Since this study included all English as a Foreign Language instructors as the population, all public and private universities were considered to participate in the study. When the results were considered, the majority of the participants were from public universities and the participation rate from private universities was relatively low, as can be seen in Figure 5.

**Figure 5**

*Institutions of the Participants*

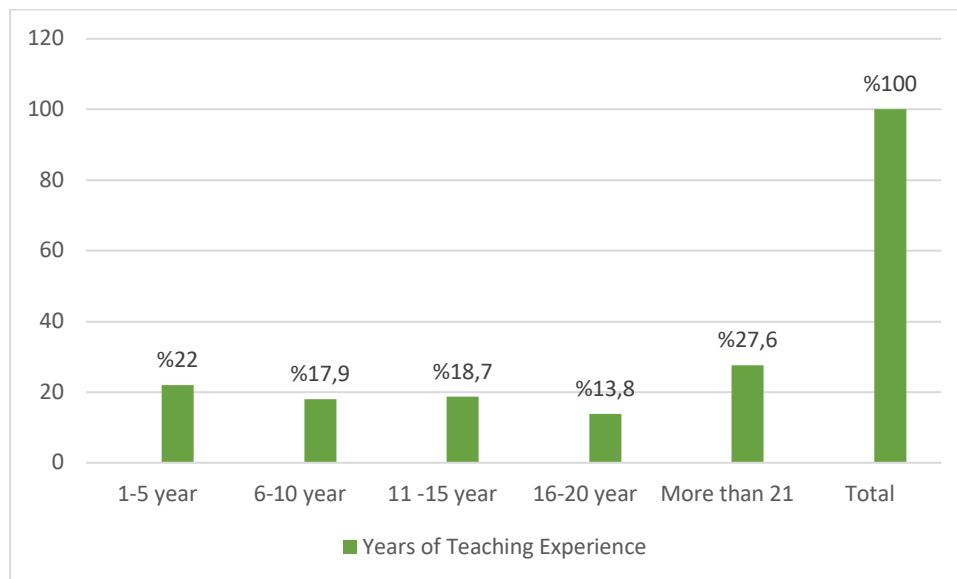


Teacher experience of the EFL instructors is an important variable in this study, it was also asked in the survey as demographic information. When the EFL instructors' years of experience were examined, it was seen that most participants had more than 21 years of experience (f =34, 27.6 %). Moreover, instructors who had years of experience between 1 and 5 (f =27, 22%) and the instructors who had years of experience between 11 and 15 (f =23,

18.7 %) followed the instructors who had years of experience between 6 and 10 ( $f = 22$ , 17.9 %) and the instructors who had years of experience between 16 and 20 ( $f = 17$ , 13.8 %). The results were presented in great detail in the following table below as Figure 6.

**Figure 6**

*Years of Teaching Experience of the Participants*

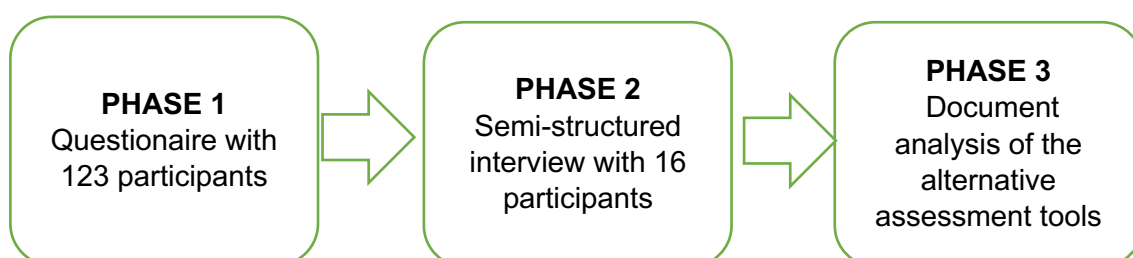


## Data Collection

Three stages were intended to be included in the data collecting process: (1) distributing questionnaires; (2) conducting semi-structured interviews; and (3) gathering alternative assessment materials from preparatory schools. The strategy for collecting data for this sequential exploratory investigation is summarized in Figure 7.

**Figure 7**

*Data Collection Procedure of the Study*





Since a sequential explanatory research design is followed in this study, data collection process started with the quantitative data collection, that is the first stage that was planned to be followed. Having this rule in the agenda, in order to be able to use the survey created by Ravitz (2014) and the team named "A Survey for Measuring 21<sup>st</sup> Century Teaching and Learning," permission is necessary to be able to reuse it. As the author and the team allowed the public to use the survey freely by attributing to the writers and by stating this fact at the end of the survey on the internet, therefore there was no need to seek personal permission from the authors.

Later, the researcher applied for permission to the Hacettepe University ethics committee to confirm that the research was appropriate to be conducted. The university ethics committee granted approval to the researcher to carry out the study on August 22, 2022. The information was collected in the academic year 2022–2023.

Following this quantitative data collection phase started. As the 21<sup>st</sup> century skills survey developed by Ravitz (2014) is a valid and reliable one, there has been no changes made on it. Demographic information section was added to the survey to be able to gather background information from the participants in order to obtain detailed data.

The language of the survey was English. The questionnaire was made available via the internet through a link on Google Forms to facilitate distribution EFL instructors. To secure the identity of the participants, none of the personal information such as name or ID number were asked for.

In order to supplement the quantitative data and get specific information on the participants' understanding, viewpoints, and knowledge of 21<sup>st</sup> century learning and innovation skills, the researcher conducted interviews as part of the study. Qualitative data were collected through semi-structured oral interviews from 16 volunteer English language teachers working in public and private universities. Participants were selected from among those who added their email addresses to the questionnaire previously shared online and agreed to participate in the interview. They were contacted via email to remind them about the study and a semi-

structured interview schedule was organized according to the responses received from the participants. Interviews were conducted face-to-face and via Zoom, an online meeting platform. Both face-to-face and online interviews were recorded while being conducted.

Before starting the interview, the participants were given a voluntary participation form to sign and the interview was started in this way. The interview questions used for the interview were developed by the researcher of this study, and in order to ensure the reliability, construct and content validity of these questions, they were created in line with the opinions of the consultant and jury members, and the final version of the interview form was created by taking the opinions of 2 more experts in the field. Accordingly, there are 13 questions in semi-structured oral interviews. The interviews took place in English, and each of the interviews was recorded by taking the permission of the participants, and the interviews lasted between sixteen and twenty minutes. The instructors were questioned about their opinions on 21<sup>st</sup> century skills and how these skills fit into their teaching and evaluation processes throughout these semi-structured interviews. As this was a semi-structured interview, although the focus stayed the same, some of the questions and also the number of the questions changed from one participant to the other participant.

The sixteen participants who have been teaching English as a foreign language at Türkiye's preparatory schools for public and private colleges were interviewed. The participants were instructing pupils at varying levels, ranging from A1 to C1, which yields a diverse array of data. In order to support the study topics and relevant literature, interview questions were created. Teachers were questioned on their understanding, awareness, application, evaluation, and use of 21<sup>st</sup> century skills.

In order to provide a familiar and at ease environment for the participants, interviews were performed in the department room during calm periods of the day, either during break or free time. For the ones who have been working at different institutions in different cities, online video conferencing was preferred to gather data, and the interviewees were allowed to choose the date and the time for the interview. To shed light on any behavioral responses made during

questioning or replying, audio recordings of interviews were made and verbatim transcribed. Interviews were conducted in English because the interviewees are English language instructors. Because the participants were willing to participate, the researcher employed convenience sampling for this section of the study. Of the interview participants, four were male and ten were female.

Participation in this study had no risks or expenses other than the time commitment of the participants. In the meantime, the significance of investigation in education was explained to the participants, and they were given the option to reschedule the interview time in compliance with the researchers' requests, in an effort to alleviate any fears or reluctance.

The third stage of data collection is the analysis of alternative assessment tools in terms of their use of 21<sup>st</sup> century skills. As the final stage of the study, the researcher asked participating schools of foreign languages to hand over their assessment tools in order to assess and reflect on their assessment processes while taking 21<sup>st</sup> century skills into account. This was done after conducting the data collection tools that were previously mentioned. In order to better grasp the process and look at critical aspects, the researcher asked them to provide their assessment tools. Participating universities were contacted via email and asked whether they could share their assessment tools used during the term of 2022-2023 for the purpose of this research. Agreed ones were four universities which sent the files via email to the researcher. The researcher was also able to visualize the evaluations and application of 21<sup>st</sup> century abilities with the use of the assessment tools. The evaluation instruments differed in level between A1 and B2. The researcher found that it was beneficial to use a range of evaluation tools from various levels in order to examine and gather actual information for the study. Assessment tools from various universities were collected and then analyzed in comparison with 21<sup>st</sup> century skills. The assessment tools used by English lecturers was categorized under the qualitative data group and analyzed by content analysis

It is easy to calculate and ensure validity and reliability when collecting and analyzing quantitative data, but this is not the case for qualitative data. There are several ways to ensure

the validity and reliability of quantitative data, which were also used in this research. To be able to secure validity and reliability of qualitative data, which is pointed out as trustworthiness by Lincoln and Guba (1985), and increase trustworthiness, some steps were executed in this study. In the first step, data triangulation was tried to be achieved by collecting data from various sources including, a survey, an interview and content analysis of assessment tools. First, in terms of validity and reliability, one may contend that the degree to which a measurement tool achieves its intended results (Lambert, 2013) defines the validity of the interview as a data collecting tool. To improve validity, experts in the field of English as a Foreign Language were contacted while creating the questions. Through this consultation process, content validity described as matching precisely with the topics that educators or programs had in fact covered (Wright & Shealy, 2004.) was attained. Through the utilization of semi-structured interviews, it was possible to accurately cover the subject by using a variety of questions to study EFL instructors' perspectives of the evaluation techniques of 21<sup>st</sup> century skills at preparatory schools. Next, 20% of the data was analyzed by another researcher in order to check inter-coder agreement (Creswell, 2012). As 80% of agreement of coding was reached, the reliability of the data analysis process was secured (Miles & Huberman, 1994). In addition, the goal was to confirm the validity of the data collecting instrument, in other words, if a research tool may be constantly understood in a variety of contexts by employing a variety of questions and taking into account the opinions of other academics (Field, 2013). Next, the participants were given access to the interview transcriptions and asked to make statement on some parts of transcriptions through member checking and enrich the trustworthiness of the study, which gave them the chance to go over the transcripts in order to confirm construct validity and assure accuracy with the aim of determining appropriate measurements for the notions under study. Lastly, to improve the study's impartiality and reliability, the participants were then assigned anonymous identities, and data gathered was analyzed without taking into account their real names or other personal information. Anonymity and confidentiality guidelines were taken into consideration at every stage of the study to improve the research's validity and reliability as well as its capacity to provide rigorous results..

## **Instruments**

In this study, various quantitative and qualitative data collection tools were used in order to give answers to the research questions by examining different resources. The aim here was to reach data triangulation to be able to analyze the data in detail and reach valid and reliable results (Creswell, 2013). That is, a study's trustworthiness may be enhanced in terms of the validity and reliability of the data and how they are interpreted by employing a variety of data gathering methods and information sources. Therefore, this study makes use of a survey which is applied to EFL instructors, interviews conducted with EFL instructors and assessment tools used by them.

### ***Instrument 1 - 21<sup>st</sup> Century Skill Survey***

As the first data collection tool, the 21<sup>st</sup> Century Teaching and Learning Survey that was developed by Ravitz (2014) was utilized as a quantitative data collection instrument in order to reveal participants 21<sup>st</sup> century skills, practices and perceptions (See Appendix A). This survey has high reliability (std. alpha >.90, inter-item correlations >.58) and content validity to measure 21<sup>st</sup> century teaching and learning. The survey consists of 8 sections which present each 21<sup>st</sup> century skill separately, and each section is divided into three parts. In the first part, definitions of eight components of 21<sup>st</sup> century skills are presented, which are critical thinking collaboration, communication, creativity and innovation, self-direction, global connection, local connections, and using technology as a tool for learning as represented below in Table 1. In the second section, a list of eight different practices of 21<sup>st</sup> century skills are tried to be found out by asking participants to select the specific classroom practices on a five-point Likert scale ranging from (1) Almost never to (5) Almost daily. After the second part questioning the practices of 21<sup>st</sup> century skills, the part on teachers' perceptions comes as the third section of the survey. This part is a four-point Likert scale asking how much they perceive themselves having taught and assessed each skill. In order to be able to investigate the background of the EFL instructors participating in the study, the researcher included a demographic information

section to the survey, which asks questions about the participants demographics ranging from their gender, educational background to the years of teaching experience.

**Table 1**

*Eight Sub-skills of 21<sup>st</sup> Century Skills taken from Ravitz (2014)*

Skills	Definitions
CRITICAL THINKING SKILLS	addresses students' capacity to examine challenging problems, look into issues for which there do not exist definitive solutions, assess many viewpoints and information sources, and reach reasonable conclusions via the use of logic and supporting data.
COLLABORATION SKILLS	addresses to the ability of students working together to discover solutions to issues or provide clarification, to work well and politely in groups to achieve a shared objective, and to take on mutual responsibility for finishing an activity.
COMMUNICATION SKILLS	addresses to students' capacity to arrange their ideas, information, and learning and successfully communicate them using a range of media, both in written and verbal form
CREATIVITY AND INNOVATION SKILLS	addresses to the ability of students to synthesize, analyze, and then combine or express what they have learnt in novel and creative ways in order to produce and find answers to challenging problems or assignments.
SELF-DIRECTION SKILLS	addresses the ability of students to take control of their education by choosing the subjects and methods they want to study, as well as the capacity to evaluate their personal work and react to criticism.
GLOBAL CONNECTIONS SKILLS	addresses students' comprehension of international and political concerns, as well as their knowledge of foreign literature, history, geography, and culture.
LOCAL CONNECTION SKILLS	addresses to the ability of students to apply the information they have learnt to challenges facing the community and local environment.
USING TECHNOLOGY AS A TOOL FOR LEARNING SKILLS	addresses to the ability of students to use relevant information and communication technology to regulate their learning and generate knowledge.

### ***Instrument 2 - Semi-structured Interview***

The second step of collecting data is interviews to be connected with EFL instructors in preparatory schools at different universities in Türkiye. For this study, a semi-structured interview was preferred for the following reasons: Firstly, when it comes to qualitative research,

semi-structured interviews are more effective than other interview methods because they enable researchers to get comprehensive data and supporting documentation from participants while keeping the study's objectives on the forefront. Secondly, in contrast to an unstructured one, when the direction of the interview is not thoroughly explored, it gives researchers flexibility and adaptation to stay on course. This paper makes use of in-depth studies of the literature on researchers' methodological reflections in qualitative research. Therefore, the interviews that are semi-structured may allow qualitative researchers to modify their study topics as they proceed while staying on the course.

The interview questions used to collect qualitative data, i.e., the interview form, were prepared by the researcher of this study and reshaped in line with the opinions of the thesis advisor and the jury members of the thesis monitoring committee. In addition, the modified questions were again shared with two different professors who are experts in the field and expert opinions were obtained. In line with the opinions gathered, the interview form was finalized and the interviews were started. The original copy of the interview form used is presented in the Appendix B.

### ***Instrument 3 - Document Analysis ( Assessment tools)***

In order to triangulate data and provide a more thorough understanding of the assessment practices used in preparatory schools, documents, in particular, assessment tools, were requested from participating preparatory schools for the universities. These include the materials used as alternative assessment tools such as students' presentations or writing portfolios etc. The reason for including alternative assessment tools in the evaluation process are stated below.

The purpose of the essential skills evaluation should be to gather the data required to evaluate students' capacity for handling real-world scenarios, however current, standardized assessment procedures fall short of this objective (Aghazadeh, 2019). Not only are 21<sup>st</sup> century skills complicated in nature, but they are also difficult to evaluate. Innovative evaluation

techniques are needed to evaluate these skills in the framework of their intended applications (Scoular et al., 2020).

The assessment techniques now in use, such as true-false, multiple choice, matching, and gap-filling questions, are unsuitable for evaluating knowledge and skills since they are often built on traditional methods that concentrate on fundamental knowledge and abilities. Specifically, these evaluation techniques don't give enough information regarding how much knowledge and skills learners have acquired in relation to any given field or how much they have used these abilities in their daily life (Kutlu et al., 2017). That's why, alternative assessment tools are here on the agenda to find an answer to the last research question of this study.

Data collection instruments exploited in this study were presented above in detail. These tools were used to answer the research questions that had been formulated for the purpose of this study, which are also presented below in a table showing which research tool was used to answer each question.

**Table 2**

*Data Collection Instruments*

Research Questions	Data Collection Instrument
Question 1 Do the 21 <sup>st</sup> century skills differ by instructors' demographic features? 1. a. Gender 1. b. Years of teaching experience 1. c. Educational background 1. d. Type of school	A Survey
Question 2 Is there a significant correlation between the EFL instructors' knowledge and teaching implementations of 21 <sup>st</sup> century skills?	A Survey
Question 3 What is the EFL instructors' self-perception of their 21 <sup>st</sup> century skills knowledge?	B Semi-structured interview
Question 4. What are the 21 <sup>st</sup> century skills implementations of the EFL instructors? 4.a. What are their teaching implementations?	B Semi-structured interview



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4.b. What are their testing and assessment implementations?

Question 5 What are the 21<sup>st</sup> century skills that EFL C Document analysis of the instructors include in the assessment tools they assessment tools develop?

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## Data Analysis

Since this is a sequential explanatory approach to mixed method research design (Creswell, 2013), the data analysis started with the quantitative data first. In the first place, to ascertain if sample data was taken from a regularly distributed population, a normality test was utilized. The distribution is normal if the coefficients of skewness and kurtosis are both zero. The skewness and kurtosis coefficients are within an acceptable range of  $\pm 1$ , as per all the references in the relevant literature; however, Hair et al (2010) claims that if the kurtosis value is outside of the range of  $\pm 7$  and the skewness value is outside of the range of  $\pm 2$ , the normality assumption is not met. This test was also used for each of the eight subsections of the survey.

Later in the present study, descriptive statistics were employed to examine the questionnaire data. According to Ali and Bashkar (2016), descriptive statistics provide an overview of the data using the mean, median, and mode. The questionnaire results from the instructors were first incorporated into quantitative data sets of 123 teacher surveys in SPSS program. The answers to the items were given on a five-point likert scale, which varied from the highest to the lowest level of utilization and understanding of teachers' 21<sup>st</sup> century skills. Calculations were made for frequencies, percentages, mean scores, and standard deviations for the demographic data to get descriptive information. This section of data was analyzed for age, gender, educational background, BA program graduated, teaching experience, institution, and level thought.

Following this, inferential statistics, which allow you determine if patterns observed in your sample have the potential to occur in your population were preferred to ascertain teachers' perspectives, awareness, and classroom implementations of the twenty-first century in their teaching contexts. An independent samples t-test, a one-way ANOVA, a Pearson product-

moment correlation were all the inferential statistics preferred in this study to reach results for the quantitative data set.

When analyzing the responses of EFL instructors about the role of 21<sup>st</sup>-century skills in their teaching and assessment content analysis was used in along with quantitative data analysis. In order to allow researchers to delve into the specifics of open-ended questions in lengthy quantitative studies, content analysis is a sort of qualitative approach that may be applied (Dawson, 2007).

Qualitative research is a methodological approach used to explore and understand complex social phenomena, human behaviors, and experiences. Central to qualitative inquiry is the process of data analysis, wherein researchers make sense of rich, unstructured data to derive meaning and generate insights, therefore, for the qualitative data analysis of the semi structured interview, the inductive coding process was preferred to be exploited in this study. Inductive coding plays a pivotal role in qualitative research as it allows researchers to derive patterns, themes, and categories directly from the data without imposing preconceived frameworks or theories. This approach is particularly valuable when studying topics where little is known or when researchers aim to capture diverse perspectives and experiences (Saldaña, 2016).

While inductive coding offers many benefits, it also presents several challenges. One challenge is the potential for researcher bias or subjectivity, as interpretations may be influenced by researchers' backgrounds, beliefs, or perspectives. To mitigate this, researchers often use techniques such as member checking or intercoder reliability checks (Miles et al., 2014). In this study, intercoder reliability was tried to be secured by coding the 20% of the data from another instructor in the field of foreign language teaching and learning.

Another challenge is the time and labor-intensive nature of inductive coding, particularly with large datasets. Analyzing qualitative data requires careful attention to detail and may involve multiple rounds of coding and analysis, which was also a procedure followed in this

study. Additionally, the iterative nature of the process means that researchers must be open to revising their interpretations and theories as new insights emerge (Saldaña, 2016).

Qualitative research encompasses a variety of approaches to understanding complex social phenomena, and coding serves as a pivotal component in the analysis of qualitative data. One coding type widely utilized in qualitative research, as delineated by Creswell (2012), is descriptive coding, which was also the coding type preferred in this study by the researcher to analyze the semi-structured interview data. Descriptive coding was preferred in this study since it involves systematically labeling or categorizing segments of data with descriptive or summary labels that capture the essence of the information contained within. The primary purpose of descriptive coding is to organize raw data into manageable units for analysis, facilitating the identification of patterns, themes, and relationships within the dataset (Saldana, 2016). Unlike other coding types that may focus on interpreting meanings or concepts, descriptive coding primarily focuses on summarizing the content of the data in a concise and meaningful manner (Miles et al., 2014).

For the document analysis of alternative assessment tools, deductive coding process was scrutinized. According to Saldana (2016), deductive coding is a top-down strategy in which you begin with an established theoretical framework or research questions that direct the building of your codebook. It is a technique used to examine qualitative data based on established classifications or topics. He emphasizes how pre-established codes in deductive coding frequently originate from theory, literature, or conceptual frameworks that are pertinent to the subject of your study. The skills from Ravitz's (2014) 21<sup>st</sup> Century Framework served as the study's codes. It consists of eight skills, which are creativity, collaboration, communication, critical thinking, self-direction skills, global connections, local connections and technology as a tool. The predetermined code groups and their explanations, which were used in the document analysis of this study, that is, in the process of analyzing the evaluation tools, are as shown in table 3.

**Table 3**

*Eight Sub-skills of 21<sup>st</sup> Century Skills taken from Ravitz (2014)*

Skills	Definitions
CRITICAL THINKING SKILLS	addresses students' capacity to examine challenging problems, look into issues for which there do not exist definitive solutions, assess many viewpoints and information sources, and reach reasonable conclusions via the use of logic and supporting data.
COLLABORATION SKILLS	addresses to the ability of students working together to discover solutions to issues or provide clarification, to work well and politely in groups to achieve a shared objective, and to take on mutual responsibility for finishing an activity.
COMMUNICATION SKILLS	addresses to students' capacity to arrange their ideas, information, and learning and successfully communicate them using a range of media, both in written and verbal form
CREATIVITY AND INNOVATION SKILLS	addresses to the ability of students to synthesize, analyze, and then combine or express what they have learnt in novel and creative ways in order to produce and find answers to challenging problems or assignments.
SELF-DIRECTION SKILLS	addresses the ability of students to take control of their education by choosing the subjects and methods they want to study, as well as the capacity to evaluate their personal work and react to criticism.
GLOBAL SKILLS CONNECTIONS	addresses students' comprehension of international and political concerns, as well as their knowledge of foreign literature, history, geography, and culture.
LOCAL SKILLS CONNECTION	addresses to the ability of students to apply the information they have learnt to challenges facing the community and local environment.
USING TECHNOLOGY AS A TOOL FOR LEARNING SKILLS	addresses to the ability of students to use relevant information and communication technology to regulate their learning and generate knowledge.

While it's possible to overlook unanticipated findings beyond the pre-established codes, this approach offers advantages such as efficiency, ensuring that the analysis is consistent with previous research, and facilitating targeted investigation of certain themes (Saldana, 2016). He understands the benefits of mixing inductive coding, which creates codes from the data itself, with deductive coding. Like him, other well-known figures in the field of qualitative research, including Strauss and Gorbun (1990), Miles and Huberman (1994), emphasize the

"interactive" aspect of coding, implying that researchers can begin with a set of codes but can continue to modify or create new ones as they work with the data. Stated differently, they talk about the advantages of a "combined approach" which makes use of both pre-existing codes plus codes that are discovered through data analysis. This allows for the exploration of both anticipated and unforeseen ideas as expected for in this study.

All of the results that were obtained using data collection technologies were examined in accordance with the study's goals and with consideration for 21<sup>st</sup> century learning and innovation abilities. The results underwent additional scrutiny and are presented in the next findings chapter.

## Chapter 4

### Findings, Comments and Discussion

In this chapter, research findings related to the perceptions of the English as a foreign language instructors related to the 21<sup>st</sup> century skills in general, with regards to the integration of the 21<sup>st</sup> century skills in the teaching and testing processes of preparatory school English language classes are presented. This section of the thesis is divided into three categories based on the research results and will be analyzed under the following headings, which are quantitative data, qualitative data derived from the interviews and assessment tools analysis results.

Due to the nature of the research design of the study, quantitative data were collected and analyzed first, followed by qualitative data collected and analyzed through semi-structured interviews, and then assessment documents were collected and analyzed through deductive coding based on the 8 categories of 21<sup>st</sup> century skills included in Ravizt's (2014) survey. Accordingly, the discussion section is presented under the headings as follows: (1) English as a foreign language instructors' 21<sup>st</sup> century skills, (2) English as a foreign language instructors' perceptions of 21<sup>st</sup> century skills, 3) English as a foreign language instructors' teaching practices of 21<sup>st</sup> century skills, 4) English as a foreign language instructors' assessment practices of 21<sup>st</sup> century skills, and (5) the place of 21<sup>st</sup> century skills in assessment tools.

#### Results of EFL Instructors' 21<sup>st</sup> Century Skills

Considering the nature of the research design, quantitative data results are presented here first in detail. The research questions were analyzed using the following statistical methods in order to be able to answer the research question: independent samples t-test, one-way ANOVA, and correlational analysis. Moreover, the preliminary analysis findings were disclosed to offer insights into the assumptions underlying the employed methodologies. Each research question's analysis outcome was sequentially presented, prefaced with the relevant assumptions prior to the inferential analysis.

### ***Assumptions of the Analyses***

To utilize the analysis methods of independent samples t-test, one-way ANOVA, and correlational study, certain criteria must be satisfied. For the independent samples t-test, there must be a continuous dependent variable and a categorical independent variable. Similarly, for one-way ANOVA, two categorical independent variables and one continuous dependent variable are required (Pallant, 2013). Additionally, both analyses demand the fulfillment of assumptions such as independence of observation, random sampling, normal distribution, and homogeneity of variances (Pallant, 2013). For conducting a correlation study, two continuous variables are necessary to explore their relationship (Pallant, 2013; Gravetter & Wallnau, 2014). Furthermore, the data for these variables should originate from the same participants. Moreover, adherence to assumptions like Independence of observation, random sampling, normal distribution, linearity, and homogeneity of variances is crucial (Pallant, 2013), as these assumptions are pivotal for parametric statistical tests due to their sensitivity to disparities. Discrepancies in variances between samples can lead to biased and skewed test outcomes.

Pallant (2013) emphasized the importance of collecting data independently to prevent its influence by other measurements, a criterion met in this study, ensuring the independence of observation. Additionally, data collection utilized a convenient sampling method, involving communication with schools of foreign languages boasting a substantial number of educators across 18 diverse cities in Turkey. While achieving random sampling in real-life research poses challenges (Pallant, 2013), it can be presumed that randomness was approximated, given the initial contact with schools harboring significant educator populations, followed by random selection from schools with average educator counts.

Assessing the normal distribution entails examining whether data cluster around the mean rather than deviating significantly (Gravetter & Wallnau, 2014). In the context of this study, the normality of the total score of 21<sup>st</sup>-century skills was scrutinized across its subsections to facilitate the execution of independent samples t-test, one-way ANOVA, and correlational analyses.

To assess the normality of the total score of 21<sup>st</sup>-century skills concerning each subscale, the skewness and kurtosis levels of the 21<sup>st</sup>-century skills scale were examined. Each value for 8 subsections of the scale are presented here one by one. For critical thinking, the skewness coefficient was -.02, suggesting a slight left skewness, while the kurtosis coefficient was -.35, indicating a slightly peaked distribution compared to the normal distribution. For the collaboration, the skewness coefficient of -.21 in our dataset indicates a minor left skewness, whereas the kurtosis coefficient of -.55 suggests a slightly more peaked distribution than the normal distribution's kurtosis of 1. In our dataset for communication category, a skewness coefficient of .04 implies a slight left skew, while a kurtosis coefficient of -.39 indicates a distribution slightly more peaked than the normal distribution. In our dataset of creativity, a skewness coefficient of -.16 indicates a subtle leftward skew, while a kurtosis coefficient of -.70 suggests a distribution somewhat more peaked compared to the normal distribution's kurtosis of 1. The skewness coefficient of -.31 in our dataset for self-direction skills shows a small left skew, while a kurtosis coefficient of -.23 indicates a distribution slightly more peaked than the typical kurtosis in a normal distribution. The skewness value of -.16 for global connection suggests a minor left skew relative to a perfectly symmetrical distribution, while the kurtosis value of -.26 indicates a slightly flatter distribution than the typical peakedness of a normal distribution. For local connections, the skewness value of -.03 indicates a subtle leftward skew in comparison to a perfectly symmetrical distribution, while the kurtosis value of -.58 suggests a distribution slightly flatter than the usual peakedness of a normal distribution. Lastly, for the category using technology as a tool, the skewness coefficient was -.39, suggesting a slight left skewness, while the kurtosis coefficient was .36, indicating a slightly peaked distribution compared to the normal distribution, which has a kurtosis of 3.

It should be noted here that all the data was distributed normally as the values for each category is between -1 and +1 as Hair, et al. (2010) suggest that skewness and kurtosis values falling within the range of -1 to +1 indicate a normal distribution. These values indicate that the



data is normally distributed and that the assumption of normality, one of the most important steps to be completed before proceeding with the analysis, has been met.

### ***Overall Descriptive Statistics Regarding the 21<sup>st</sup> Century Skills Scale***

In this section, the results of the statistical analysis of the scale are shared. The descriptive statistics mentioned here are the mean, standard deviation, minimum and maximum values. The 21<sup>st</sup>-century skills scale's overall score as well as the scores of its subgroups were investigated at. Participants in this study evaluated their own understanding of general 21<sup>st</sup>-century skills ( $M=3.25$ ,  $SD=.7$ ).

In addition, descriptive statistical analysis was conducted for each of the sub-groups of 21<sup>st</sup> century skills and presented in the Table 4 below. Firstly, for critical thinking, the mean of the participants was found to be 3.22 ( $SD= .81$ ). For collaboration, this value is 3.51 with a standard deviation of .8, these results show that the value with the highest mean value is collaboration. For communication, one of the subcategories, the scale mean is 3.28 ( $SD= .81$ ). For another sub-category, creativity, the mean was 3.04 and the standard deviation for this group was .81. Fifth self-direction skills is mentioned as a 21<sup>st</sup> century skill and the mean and standard deviation values of this skill are as follows: 3.21 and .92. Another skill, global connections, has a mean of 3.14 ( $SD= .85$ ). local connections is the other 21<sup>st</sup> century skill with a mean of 2.85, the lowest value among the eight skills in the scale ( $SD = .93$ ). Finally, the sub-skill related to the use of technology has a mean of 3.49 with a standard deviation of .95.

**Table 4**

#### *Descriptive Statistics Regarding the 21<sup>st</sup> Century Skills Scale*

	<i>M</i>	<i>SD</i>
Total 21 <sup>st</sup> Century Skills	3.25	.7
Critical Thinking	3.22	.81
Collaboration	3.51	.8
Communication	3.28	.81
Creativity	3.04	.81

Self-Direction Skills	3.21	.92
Global Connections	3.14	.85
Local Connections	2.85	.93
Technology as a Tool	3.49	.95

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*Note: n = 123.*

Overall, the results suggest that participants, i.e. EFL instructors, have a moderate understanding of 21<sup>st</sup> century skills, with some areas stronger than others. The most strongest area that they are in is collaboration while there is room for improvement in all areas, but particularly in local connections as having the smallest mean level.

### ***Results of EFL Instructors' 21<sup>st</sup>-Century Skills Regarding Their Gender, Years of Teaching Experience, Educational Background and Type of School***

The first research question of the study was about the 21<sup>st</sup>-century skills of EFL instructors working at preparatory schools in Türkiye, asking whether EFL instructors differ in terms of 21<sup>st</sup> century skills by their demographic features. The research question and sub-research questions were as follows:

Research Question 1. Do the 21<sup>st</sup> century skills differ by instructors' demographic features?

1. a. Gender
1. b. Years of teaching experience
1. c. Educational background
1. d. Type of school

The first sub research question was answered using an independent samples t-test. An answer to the second sub-question was obtained using a one-way between-groups analysis of variance (ANOVA). The third one also was answered using a one-way between-groups analysis of variance (ANOVA). Lastly, for the fourth question, the statistical analysis method used to answer that question was an independent samples t-test.

An independent samples t-test was conducted to understand if female and male groups differ in terms of their 21<sup>st</sup> century skills implementation. There was not a statistically significant difference between female ( $M=3.18$ ,  $SD=.78$ ) and male ( $M=3.3$ ,  $SD=.88$ ) groups in their 21<sup>st</sup> century skills teaching:  $t(123)=-.75$ ,  $p=.45$ . These results suggest that gender has no effect on 21<sup>st</sup> century skills implementation. It is concluded that gender does not seem to have an influence on how instructors implement 21<sup>st</sup> century skills in their teaching. This suggests that instructors of both genders likely use similar approaches when incorporating these skills into their lessons. In other words, whether they are female or male, instructors' teaching of these skills does not change.

**Table 5**

*Difference in the 21<sup>st</sup>-Century Skills Total Score by Gender*

	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Male	3.3	.88	123	-.75	.45
Female	3.18	.78	123	-.75	.45

A one-way between subjects ANOVA was conducted to compare the effect of years of teaching experience on the 21<sup>st</sup> century skills implementation and to be able to answer the research question 1.b.. Years of teaching experience was considered as a grouping variable which was divided into groups as in the following: 1-5 years, 6-10 years, 11-15 years, 16-20 years and more than 21 years. There was not a significant difference between years of teaching experience and 21<sup>st</sup> century skills implementation at the  $p<.05$  level for five conditions [ $F(4,18) = 0.47$ ,  $p=.75$ ]. The mean scores for 1-5 years ( $M=3.24$ ,  $SD=.87$ ), 6-10 years ( $M=3.24$ ,  $SD=.55$ ), 11-15 years ( $M=3.24$ ,  $SD=.63$ ), 16-20 years ( $M=3.16$ ,  $SD=.48$ ) and more than 21 years ( $M=3.41$ ,  $SD=.68$ ) did not show any discernible differences from one another. The one-way ANOVA result suggests that there is no statistically significant difference in how instructors implement 21<sup>st</sup> century skills based on their years of teaching experience. To put it

another way, the findings suggest that regardless of how many years someone has been teaching, they seem to implement 21<sup>st</sup> century skills in a similar way.

**Table 6**

*Descriptive Statistics of the Instructors' Years of Teaching Experience*

	N	M	SD
1-5 years	27	3.23	.87
6-10 years	22	3.24	.55
11-15 years	23	3.24	.63
16-20 years	17	3.16	.48
More than 21 years	34	3.41	.73

**Table 7**

*Difference in the 21<sup>st</sup>-Century Skills Total Score by Years of Teaching Experience*

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	.903	4	.226	.471	.757
Within Groups	56.516	118	.479		
Total	57.418	122			

For the research question 1.c, a one-way between subjects ANOVA was conducted. This test was used to compare the effect of educational background on the 21<sup>st</sup> century skills implementation. The means of three groups categorized by educational background (BA, MA, and PhD) on a single outcome variable: implementation of 21<sup>st</sup> century skills was compared. The results showed that there was not a significant difference between educational background and 21<sup>st</sup> century skills implementation at the  $p < .05$  level for BA, MA, and PhD level education conditions [ $F(2,120) = 1.71, p = 0.19$ ]. Specifically, 21<sup>st</sup> century skills implementation does not differ according to the education level. In simpler terms, the results don't provide

strong evidence that educational background significantly impacts how instructors use 21<sup>st</sup> century skills in their teaching.

**Table 8**

*Descriptive Statistics of the Instructors' Educational Background*

	N	M	SD
BA	35	3.35	.73
MA	62	3.17	.64
PhD	26	3.43	.70

**Table 9**

*Difference in the 21<sup>st</sup>-Century Skills Total Score by Educational Background*

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	1.587	2	.794	1.706	.186
Within Groups	55.831	120	.465		
Total	57.418	122			.45

Lastly, for the 4<sup>th</sup> sub question of the first research question, an independent samples t-test was conducted to understand if 21<sup>st</sup> century skills implementation differs according to the institution type that the instructors work. The results showed that there was not a statistically significant difference between private universities (M=3.13, SD=0.95) and state universities (M=3.31, SD=0.63) in their 21<sup>st</sup> century skills teaching:  $t(19.697) = -.75, p = .46$ . These results suggest that type of university (private or state) has no significant effect on how instructors implement these skills. In other words, whether you work at a state school or private school, your teaching of 21<sup>st</sup> century skills does not change.

***Results of the Correlation of EFL Instructors' 21<sup>st</sup>-Century Skills Knowledge and Implementation***

The second research question was seeking an answer to the question whether there is a significant correlation between the EFL instructors' knowledge and teaching implementations of 21<sup>st</sup> century skills. A Pearson product-moment correlation coefficient was computed to assess the relationship between creativity, collaboration, communication, self-direction skills, global connections, local connections, and technology use.

**Table 10**

*Means, Standard Deviations, and Correlations Between Variables*

Variable	M	SD	1	2	3	4	5	6	7
1. Critical Thinking	3,2287	0,81855	1						
2. Collaboration	3,1561	0,72102	,566**	1					
3. Communication	3,28	0,81346	,599**	,632**	1				
4. Creativity	3,4711	0,99015	,614**	,685**	,700**	1			
5. Self-Direction	3,2314	0,92394	,651**	,570**	,711**	,692**	1		
6. Global Connections	3,1304	0,83674	,459**	,368**	,557**	,528**	,571**	1	
7. Local Connections	2,8688	0,94178	,511**	,453**	,628**	,574**	,606**	,714**	1
8. Technology Use	3,4891	0,95622	,385**	,400**	,534**	,501**	,558**	,582**	,550**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 10 shows the correlation analysis between the variables. The relationship between all variables is positive. Accordingly, the relationship between the critical thinking variable and collaboration ( $r=.566$ ,  $p<0.01$ ), communication ( $r=.599$ ,  $p<0.01$ ), creativity ( $r=.614$ ,  $p<0.01$ ), self-direction skills ( $r=.651$ ,  $p<0.01$ ), global connections ( $r=.459$ ,  $p<0.01$ ), local connections ( $r=.511$ ,  $p<0.01$ ), and technology use ( $r=.358$ ,  $p<0.01$ ) are significant.

Similarly, the relationship between collaboration variable and communication ( $r=.632$ ,  $p<0.01$ ), creativity ( $r=.685$ ,  $p<0.01$ ), self-direction ( $r=.570$ ,  $p<0.01$ ), global connections ( $r=.368$ ,  $p<0.01$ ), local connections ( $r=.453$ ,  $p<0.01$ ), and technology use ( $r=.400$ ,  $p<0.01$ ) is significant.

In addition to the above results, communication and other skills, namely creativity ( $r=.700$ ,  $p<0.01$ ), self-direction ( $r=.711$ ,  $p<0.01$ ), global connections ( $r=.557$ ,  $p<0.01$ ), local connections ( $r=.628$ ,  $p<0.01$ ), and technology use ( $r=.534$ ,  $p<0.01$ ), were significantly correlated.

In parallel, creativity was found to be significantly correlated with self-direction ( $r=.692$ ,  $p<0.01$ ), global connections ( $r=.528$ ,  $p<0.01$ ), local connections ( $r=.574$ ,  $p<0.01$ ), and technology use ( $r=.501$ ,  $p<0.01$ ) skills.

Self-direction skill was also found to be significantly correlated with global connections ( $r=.557$ ,  $p<0.01$ ), local connections ( $r=.628$ ,  $p<0.01$ ), and technology use ( $r=.534$ ,  $p<0.01$ ) skills.

Global connections skill is positively and significantly correlated with local connections ( $r=.714$ ,  $p<0.01$ ), and technology use ( $r=.582$ ,  $p<0.01$ ) skills. Finally, a significant correlation was found between local connections and technology use ( $r=.550$ ,  $p<0.01$ ).

Overall, this strong positive correlation shows that increase in one of the skills is correlated with increase in the other skills. This indicates that instructors with higher reported implementation in one skill tend to also report higher implementation in other skills. Specifically, when instructors have more implementation in collaboration, they also do more creativity activities.

### ***Summary of the Quantitative Results***

The study investigated how various factors relate to EFL instructors' implementation of 21<sup>st</sup> century skills in their teaching. The findings of the study on 21<sup>st</sup> century skills of EFL instructors in Turkish preparatory schools are summarized below shortly.

*Research Question 1: Do instructors' demographics influence their use of 21<sup>st</sup> century skills?*

The study investigated if instructors' gender, years of experience, educational background (BA, MA, PhD), and type of school (private vs. state) affect their implementation of 21<sup>st</sup> century skills. Statistical tests revealed no significant differences across any of these demographic factors. This suggests that instructors, regardless of gender, experience, education, or workplace (private/state school), tend to use similar approaches when incorporating these skills into their teaching.

*Research Question 2: Is there a relationship between instructors' knowledge and implementation of 21<sup>st</sup> century skills?*

The study found a positive correlation between all the measured 21<sup>st</sup> century skills (creativity, collaboration, communication, etc.). This means instructors who report using one skill tend to report using others as well.

Overall, the study suggests that while some factors like demographics and university type might not play a significant role; however, there seems to be a positive association between different 21<sup>st</sup> century skills in terms of how instructors implement them.

## **Discussion of Quantitative Results**

This section compares and contrasts the results that other writers have proposed in order to analyze the current study's findings in light of the literature.

### ***EFL Instructors' 21<sup>st</sup> Century Skills***

The first research question sought to determine whether or not EFL instructors who work at preparatory schools of various universities differ in their instructional practices for teaching 21<sup>st</sup> century skills based on demographic features such as gender, years of teaching experience, educational background, and type of school. The results associated with it are discussed here. The first question and sub-questions to be discussed here are as follows:

Research Question 1 Do the 21<sup>st</sup> century skills differ by instructors' demographic features?



1. a. Gender
1. b. Years of teaching experience
1. c. Educational background
1. d. Type of school

When the first sub-research question considered, it was found that EFL instructors practices of the 21<sup>st</sup> century skill does not change according to the gender of the instructors. To put it differently, there was no discernible correlation between the gender of the research participants and their usage of 21<sup>st</sup>-century teaching techniques (Daflizar, 2018, Orhan-Göksun, 2016, Gürültü, Aslan, & Alıcı, 2019, Kozikoğlu & Özcanlı, 2020). Research currently suggests there's likely no significant difference in EFL instructors' knowledge and application of 21<sup>st</sup> century skills based on their gender. Similar to the current study, in a research by Yesilyurt (2010), there was no gender-based significant difference in the pre-service teachers' credentials that made them suitable for skills teaching. Similarly, According to Erten (2019), teachers who underwent pedagogical formation education have adequate 21<sup>st</sup> century abilities, with no discernible variation in these skills based on their gender or field of study. Research like Daflizar (2018) on Indonesian EFL teachers and Sherwani and Kılıç (2017) on Turkish EFL lecturers haven't identified gender as a factor influencing integration of 21<sup>st</sup> century skills. However, for instance, Orhan-Göksün's study (2016) showed that compared to male instructors, female teachers in her study made more use of 21<sup>st</sup>-century teaching techniques. Similarly, in Tican and Deniz's study (2019) the gender variable was used to investigate how pre-service teachers used 21<sup>st</sup> century learner skills. The results showed that female pre-service teachers had better "collaboration and flexibility skills" than male pre-service teachers, but there was no significant difference found in the sub-dimensions of "cognitive skills," "autonomous skills," "innovativeness skills," and "flexible teaching skills" It was discovered that female pre-service teachers utilize "administrative skills," "technopedagogical skills," "generative skills," and "affirmative skills" more frequently than male pre-service teachers when the usage of 21<sup>st</sup> century teaching skills was examined based on the gender variable. The lack

of variation in the use of 21<sup>st</sup>-century teaching techniques between genders is a more common finding. Nevertheless, these contradictory results for the collaboration and flexibility skill may be due to the fact that the distribution of male participants in the group was only 29%. In addition, the sample of Tican and Deniz's (2019) study consisted of pre-service teachers, not in-service teachers, which may be one of the reasons that may explain the difference. In addition to the studies mentioned above, Çınar (2019) found a statistically significant difference favoring males. The equal opportunity principle in education, which forbids gender discrimination in the Turkish educational system, may be the reason for the lack of variation in the application of 21<sup>st</sup>-century teacher skills by gender. Accordingly, it is reasonable to assume that instructors who receive their training and certification under this principle will have equivalent 21<sup>st</sup>-century teaching abilities.

The reason for the current study's results may be explained by the following reasons. Firstly, programs for preparing teachers may place more emphasis on subject matter knowledge and pedagogical abilities than on gender-specific strategies. This might result in teachers of both sexes adopting comparable methods and knowledge related to 21<sup>st</sup> century abilities. There is a shift in the traditional gender roles in schooling (UNESCO, 2019). It's possible that educators—male and female—are growing more at ease implementing cutting-edge teaching strategies that support 21<sup>st</sup> century abilities. This pattern is consistent with more general cultural movements in favor of gender parity in the workforce and in educational settings. Lastly, regardless of gender, educators who are enthusiastic about incorporating 21<sup>st</sup> century skills may actively look for training and use these strategies in their instruction.

The second sub-research question investigated whether EFL instructors' twenty-first century skills varied according to years of teaching experience. Regarding their professional experiences, there was no discernible variation in the participants' utilization of 21<sup>st</sup>-century skills. Put differently, it may be claimed that the participants' perception of 21<sup>st</sup>-century skills was comparable in terms of their professional experience as there was no significant difference found in this study. Similar to this study showing no difference in terms of seniority, Gürültü

and others (2020) found that secondary school teachers believed that their 21<sup>st</sup> century teaching abilities were at a high level and that there was no difference in their use of these abilities based on seniority. Similarly, Moosa and Shareefa (2019) investigated the idea that instructors' use of differentiated teaching is unaffected by their years of experience.

Contrary to the studies with no difference in results, there are also some others which showed that teaching experience affects 21<sup>st</sup> century skills knowledge. In the study of Kozikoğlu and Özcanlı (2020), it was concluded that teachers with 1-5 years of experience and teachers with 16 years and more experience had higher levels of professional commitment and 21<sup>st</sup> century teacher skills. Although this difference was explained by them according to the results of Ware and Kitsantas (2007) which showed that those with 16 years or more of professional experience teachers' organizational commitment levels are higher; however, this was not the situation for this study. The study by Kini and Podolsky (2016) shows that more seasoned educators are better at managing the teaching and learning process. Therefore, it seems sense that educators with more years of experience would see the value of 21<sup>st</sup> century skills practices, which totally contradicts the results of the current study demonstrating that instructors' actions and views of 21<sup>st</sup> century skills are unaffected by their years of experience.

Even if educators lack specialized training in teaching 21<sup>st</sup> century skills, they might not encounter challenges in imparting these skills to students. Tee et al. (2018) found that in the event of a policy shift, both inexperienced and seasoned educators struggle to adapt their pedagogical approaches to align with the new guidelines. This clearly shows that the idea that the experience gained in this study does not have an impact on teachers' 21<sup>st</sup> century skills is also recognized in the literature.

For the studies having arguments for a significant difference may be because of the reason provided by Daflizar (2018) that training for newer instructors may have placed a strong emphasis on 21<sup>st</sup>-century abilities like technology integration and project-based learning. They could be more inclined to use these strategies as a result. Teachers who are new to the profession and teachers who have gained experience in the profession like their profession

more, and they do more to improve themselves. They make efforts and work devotedly for the success of themselves and their students (Butucha, 2013). This difference in terms of teaching experience can be explained by the fact that teachers who are new to the profession are more dedicated and have more 21<sup>st</sup> century teacher skills because of the excitement, effort and dedication of being new to the profession, while teachers who are experienced in the profession are more dedicated and have more 21<sup>st</sup> century teacher skills because of the experiences and experiences they have gained in the profession. In addition, compared to certain experienced teachers who are set in their ways, younger educators can feel more at ease experimenting with new technology and instructional techniques as proposed by Yildiz (2017). However, effective instructors focus on what serves best for their learners, regardless of experience level. Although they may not use the newest terminology, senior teachers may have created effective teaching strategies that are in line with the development of 21<sup>st</sup>-century skills (Lang & Baek, 2018).

Opportunities for experienced educators' professional development may not place a high priority on incorporating 21<sup>st</sup> century abilities. These educators may rely on tried-and-true techniques that they have applied throughout their careers. It's possible that more junior teachers are imitating more experienced colleagues who haven't embraced these techniques, which may result in the similarity in their perception and teaching of 21<sup>st</sup> century skills. Additionally, both previous and contemporary teacher preparation programs may have placed more emphasis on conventional teaching strategies than on incorporating 21<sup>st</sup> century abilities, that's why training teachers on these traditional educational views is needed. Perhaps this is a relatively new development—the significance of 21<sup>st</sup> century skills in schooling. While more recent teachers may still be in the process of learning integrating these abilities into their lessons, experienced teachers may not have encountered them in their early professional development. All in all, the above mentioned points may be the reasons for insignificant result among experienced and inexperienced instructors in their 21<sup>st</sup> century skill knowledge and application.

The results of this study for the third sub question which seeking an answer whether the educational background of EFL instructors differ in terms of their 21<sup>st</sup> century skills knowledge and practices showed that, when it came to the skill knowledge and teaching techniques of instructors in the twenty-first century, there was no discernible variation depending on the teachers' educational backgrounds. According to several research published in the literature, teaching in the twenty-first century does not depend on the educational background of the instructor (Anderson, 2020; Şahin, 2021). As for Anderson's (2020), study, it showed similar results with this one, which reached no difference in terms of educational background on EFL instructors 21<sup>st</sup> century skill. On the other hand, there are abundant studies which found that teachers' educational backgrounds and pedagogical knowledge had an impact on how they perceived and applied 21<sup>st</sup> century skills and tools (Fives & Gills, 2015; Çelebi & Sevinç, 2019; Otlu, 2020). Çelebi and Sevinç (2019) conducted a study involving 130 secondary school teachers, which found that educators with postgraduate degrees see 21<sup>st</sup> century talents as more efficacious, which is evident that there are disparities in the outcomes between educators' beliefs and methods for teaching 21<sup>st</sup> century skills and their educational background. Similarly, according to Otlu's (2020) research, English language instructors holding postgraduate degrees use worldwide connections more frequently than those holding undergraduate degrees. These different results from the current one can be explained by the fact that there are only %26 of the participant hold PhD as postgraduate study. All in all, the participant EFL instructors' methods to teaching in the field were unaffected by their possession of a BA, MA, or PhD. The other reason may be that the programs that EFL instructors graduate may place less of an emphasis on incorporating 21<sup>st</sup> century abilities and more of an emphasis on the fundamental language acquisition approaches (grammar, vocabulary, pronunciation, and four skills). This could cause instructors whether they have an MA or PhD to have the same goal and behave in a similar way. This insignificant result can also be explained by the idea that regardless of their particular curriculum, teacher training programs may not provide teachers with enough exposure to cutting-edge teaching strategies

that support 21<sup>st</sup> century abilities. This could prompt educators from various programs to use conventional teaching methods, and have similar results.

The fourth and last sub question asking the role of type of school that they are employed affect EFL instructors 21<sup>st</sup> century skills. According to the results of this study, there was no discernible difference in the opinions of EFL instructors employed by private and state universities. This implies that their perceived abilities to use 21<sup>st</sup> century skills in the classroom are comparable. In other words, according to the results, private school instructors and public school instructors do not differ in terms of 21<sup>st</sup> century skills knowledge and classroom practices. Erden and Başoğlu (2019) discovered a similar result: there was no noticeable variation in the overall ratings of EFL instructors at the foundation university and the state university. Although Grossberg (2020) found a contradictory result that private schools integrate different skills and classroom practices than public schools, in this study, EFL instructors working in public and private schools showed no difference in terms of 21<sup>st</sup> century skills knowledge and practices.

Another research result that coincides with the results reached is the study of Otlu (2020). She found that teachers' practices of 21<sup>st</sup> century skills are influenced by whether they teach in public or private schools; nevertheless, only self-direction, communication, and creativity and innovation abilities show substantial variations. In this case, it is reasonable to suppose that instructors at private schools comprehend the value of developing these abilities and have greater opportunity inside the school to put the practices into effect.

The results of the current study contradict some of the studies in the literature and the lack of a difference in the use of 21<sup>st</sup> century skills between public and private universities can be explained by the following reasons. If educators in public and private schools have access to comparable training programs that prioritize conventional teaching techniques, there may not be much of a difference in their methods. Together with this, both public and private colleges may mostly depend on traditional measures for student assessments. The integration of 21<sup>st</sup> century abilities may not be well captured by these measurements, which might cause

EFL instructors to place a higher priority on teaching skills like reading, writing, and skill development. In addition, universities, whether private or public, may have limited resources. This may reduce funding for university training programs that are especially concerned with incorporating 21<sup>st</sup> century skills into instructional strategies. Last but not the least, universities may have a similar learning environment that prioritizes traditional methods of instruction whether they are private or public. This may cause instruction at both kinds of institutions to become more comparable.

### ***Correlation Between the EFL Instructors' Knowledge and Teaching Implementations of 21<sup>st</sup> Century Skills***

In order to find an answer to the second research question, - Is there a significant correlation between the EFL instructors' knowledge and teaching implementations of 21<sup>st</sup> century skills?- a correlational study was computed on the data, which resulted in a high correlation level among each subskills. This result is discussed below considering the studies in the literature.

A consensus on a set of 21<sup>st</sup> century abilities does not exist. Though each skill has subskills within it, frameworks like the "4C skills" (communication, collaboration, critical thinking, and creativity) are prevalent. The current body of data is insufficient to conclusively state that all of the 21<sup>st</sup> century skills subskills for EFL instructors have a significant positive link with one another. Evidence does, however, seem to point to a beneficial relationship between a few subskills and the general efficacy of EFL teachers. Research frequently focuses on how well teachers incorporate these abilities into their instruction, rather than always on the relationship. This study however, tried to find the correlation between these skills. As a result of the correlation study conducted for this thesis, the high positive correlation of each of the 8 different skills with each other is also consistent with the results of different studies in the literature. For example, in Aguila's (2015) study, the correlation between 21<sup>st</sup> century skills and the possession of these skills was investigated and the results showed the levels of possession of 21<sup>st</sup> century skills were determined as very good in all three sub-dimensions, and social and

intercultural skills, which are sub-dimensions of life and career skills, were determined as excellent. In addition, the correlation between the three dimensions was reported to be high, which is similar to this study's results. Kozikoğlu and Altunova's study (2018) also showed similar results. A significant relationship was found between teachers' self-efficacy perceptions of 21<sup>st</sup> century skills and their lifelong learning dispositions, and a low, positive and significant relationship was found between pre-service teachers' lifelong learning dispositions and information, media and technology skills, while a moderate, positive and significant relationship was found between learning and renewal skills and life and career skills.

The study discovered a substantial positive link between all of the assessed 21<sup>st</sup> century abilities that teachers utilized. These might be because of the following reasons. The interconnectedness of many 21<sup>st</sup> century skills is rooted in their nature (Binkley et al., 2004). Critical thinking, for instance, frequently calls for cooperation to exchange viewpoints and solve issues as well as good communication to express ideas. Gaining proficiency in one area will always lead to the growth of others. Apart from this, teachers who place a high priority on incorporating 21<sup>st</sup> century skills probably don't concentrate on them alone. They could use a multifaceted teaching strategy that incorporates a variety of abilities into their courses in other words holistic education (Miller, 2004). For instance, a project-based learning exercise may promote communication, critical thinking, teamwork, and creativity all at once.

Based on these findings, it can also be concluded that EFL instructors' high levels of self-confidence views on 21<sup>st</sup> century abilities are influenced by modern information technologies, openness to learning, as well as easy access to resources. Teachers who distribute the learning activity throughout their life and who have the qualifications appropriate for their age will be crucial in producing competent pupils since they are the ones who will raise the people who will influence the future. As a result of their continuous learning and renewal, familiarity with media, technology, and knowledge of information, instructors will help students acquire these abilities by setting an example for them to follow. One beneficial outcome for our



educational system is that instructors working in the classrooms are adopting the 21<sup>st</sup> century abilities that are demanded of those who teach in the preparatory programs of universities.

What is more, learning has become much more students centered today (Weimer, 2002). It's common for teachers to need to employ a variety of 21<sup>st</sup> century abilities as they go from teacher-centered lectures to student-centered activities. During a single task, students may need to work in groups on projects, share their ideas, and use critical thinking to solve difficulties. This makes it more meaningful as one skill is found to be bind to the other in this current study.

The teachers' personal characteristics may also clarify this. Several studies have demonstrated a favorable correlation between the instructors' perception of efficacy and the motivation, academic accomplishment, and self-efficacy of their students (Tschannen-Moran & Woolfolk-Hoy, 2001). Teachers who possess an innate curiosity and receptiveness to new ideas may be more inclined to foster in their pupils an aptitude for critical thinking and creativity. Additionally, it may be simpler for educators who are skilled communicators to encourage cooperation and teamwork.

### **Results of EFL Instructors' Perceptions of 21<sup>st</sup> Century Skills and Their Teaching and Assessment Practices**

In order to investigate the instructor perceptions in relation to the 21<sup>st</sup> century skills, teaching and assessment implementations of these skills, the third and fourth research questions were taken as the basis to seek answers. With the aim of obtaining further details about teacher perceptions, the third research question, and in order to gather data about teaching and assessment implementations of the EFL instructors, the fourth research question with its two sub questions were employed during data collection procedures that are detailed below.

Research Question 3: What is the EFL instructors' self-perception of their 21<sup>st</sup> century skills knowledge?

Research Question 4: What are the 21<sup>st</sup> century skills implementations of the EFL instructors?

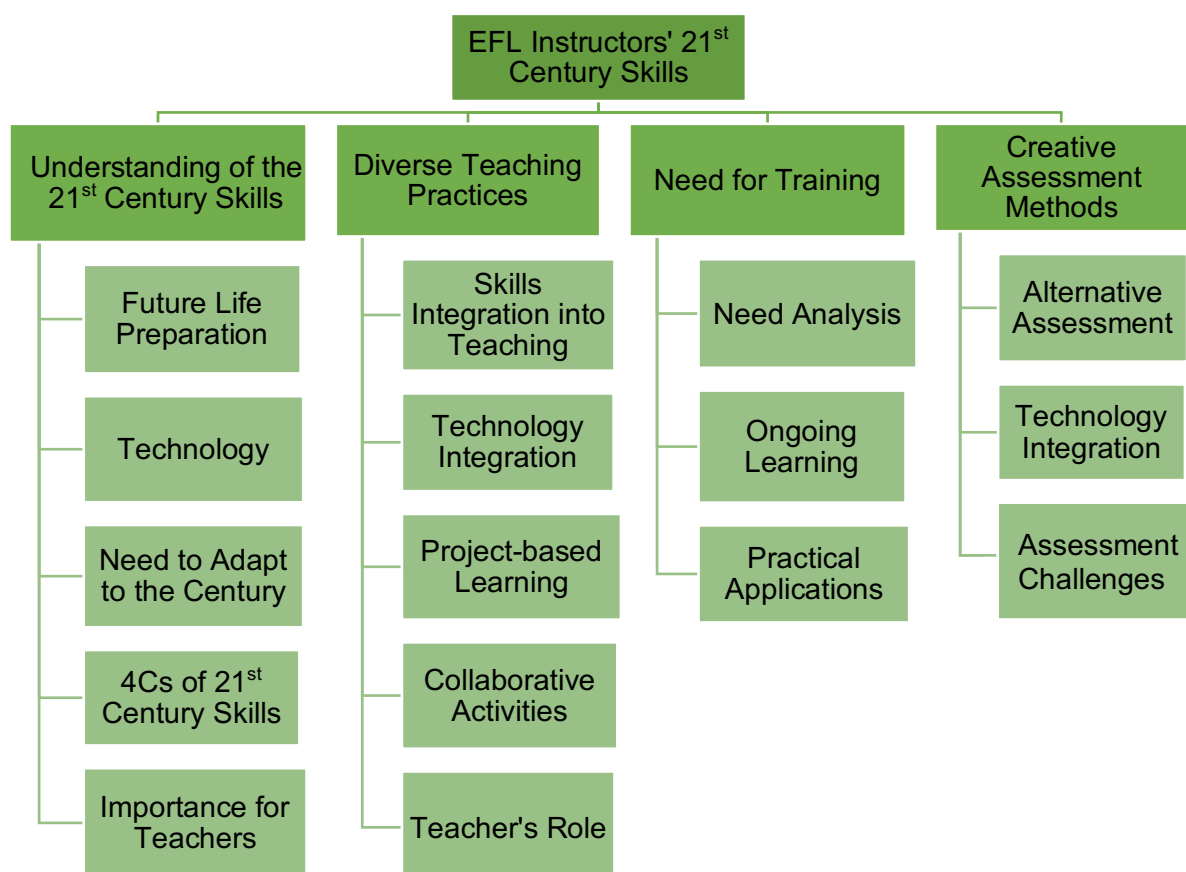
4.a. What are their teaching implementations?

4. b. What are their testing and assessment implementations?

The four themes emerged during the qualitative analysis are presented based on the questions of 21<sup>st</sup> century skills perceptions of English as a foreign language instructor and their classroom and exam practices. Figure 4 presents a visualization of these themes and their categories emerged during the analysis process.

**Figure 8**

*Themes and Categories Emerged*



***Understanding of the 21<sup>st</sup> Century Skills***

The research question sought to investigate the EFL instructors' self-perception of their 21<sup>st</sup> century skills knowledge, and it comprised categories, namely, *Future Life Preparation, Technology, Need to Adapt the Century, 4Cs of 21<sup>st</sup> Century Skills, and Importance for Teachers* under the main theme emerged as Understanding of the 21<sup>st</sup> Century.

For the first theme which sought to uncover the perceptions of EFL instructors in terms of 21<sup>st</sup> century skills five categories namely *Future Life Preparation, Technology, Need to Adapt the Century, 4Cs of 21<sup>st</sup> Century Skills, and Importance for Teachers*. Each category consisted of the following numbers of codes respectively, which are presented in the table below:

**Table 11**

*EFL Instructors' Understanding of the 21<sup>st</sup> Century Skills*

Themes	Categories	Codes	Frequency ( <i>f</i> )
Understanding of the 21 <sup>st</sup> Century Skills	Future life preparation	Necessary for future life	2
		Importance in work life	1
	Technology	Technology as the most important skill	8
		Technology use today	3
		Technological changes today	2
	Need to adapt to the century	Adapting to the century	3
		Varied understanding level	1
	4Cs as 21 <sup>st</sup> century skills	4Cs as the important skills	5
		Critical thinking as favorite	3
	Importance for teachers	Improving yourself as a teacher	6
		Lacking knowledge	5
		Having confidence in skills	2

Based on the results, it was uncovered that 21<sup>st</sup> century skills meant that it is necessary for future life preparation. Not all of them but some of the instructors asserted that these skills are important and everyone needs them, regardless of their job. Participant 2 said that "... not just for academic life also they need those skills in their professional life in the future time so as service teachers we should support them and should make them get prepared for future life." She emphasizes that these skills are crucial not just in everyday life, but also for their future careers. The speaker thinks it is important that these students might not be prepared for the intense competition in the job market if they don't develop these skills soon. In a similar vein Participant 4 also concerns about the future of instructors by saying that "Probably in the near future we would need those skills I think much more than compared to our own generation at least I can say I think it is essential." He believes that in the future, these skills will be more important than ever. 21<sup>st</sup> century skills, such as communication, collaboration, critical thinking, and problem-solving, will be essential for success in any career. Skills are going to be much more important in the future than they are now. This aligns with the idea that 21<sup>st</sup> century skills are becoming increasingly important for success in the workplace.

Similarly, Participant 9 explains her idea of 21<sup>st</sup> century skills by stating the following words:

I think I can't help it but I keep thinking about their future careers I don't know if that's a good thing or bad thing like of course they need to do that in in their lives with their relations but I can't help it but think that these skills are will be important for their future careers they need to be ready for that because there's going to be some real good competition or rivalry among job seekers or whatever they need to develop all these skills before it is too late as early as possible.

She highlights the instructor's awareness of the fiercely competitive job market. They recognize that simply mastering English grammar and vocabulary might not be enough for students to secure success. The emphasis on real good competition suggests an understanding of the evolving nature of work, where critical thinking, collaboration, and communication skills are

increasingly valued. This aligns with the core tenets of 21<sup>st</sup> century skills, which go beyond traditional academic knowledge to encompass adaptability, problem-solving, and technological literacy.

When we think of the EFL instructors' self-perception of their 21<sup>st</sup> century skills knowledge, the second theme came into was *Technology* found as the meaning of 21<sup>st</sup> century. Beginning from the first participant to the last participant, most of them agreed on the idea that technology is the most important of all skills. Participant 1 agrees with this idea by stating "Of course their ability to be able to use technological tools technology effectively without it I think they cannot survive in the 21<sup>st</sup> century. Their profession in their personal life it is impossible to be able to survive." She emphasized that in the 21<sup>st</sup> century, effectively using technology has become essential for survival, both professionally and personally. Without this skill, she believes that people will struggle to navigate the modern world. She highlights the importance of technological literacy in the 21<sup>st</sup> century. It goes beyond simply using technology and emphasizes using it effectively. Similar to the idea of this participant, Participant 2 replied that:

I think technology literacy is the most important of all because as I said I try to make them more autonomous and while doing this they should reach the information by themselves. To do this they should know how to use technological things, web tools or other things.

The speaker emphasizes that the ability to use technological tools effectively is crucial for survival in the 21<sup>st</sup> century. She reflects the widely held belief that technological literacy is essential in the modern world. Technology is pervasive, impacting how we work, communicate, access information, and even manage our personal lives. Overall, she points out the importance of developing technological literacy in the 21<sup>st</sup> century.

Following the idea of the other participants, participant 3 also says that "Actually yes all of them are important but the most important one I think is the integration of technology in learning and teaching." She is a fan of technology integration into foreign language classes, too. She also continues to support her idea with the following words "We need to be expert at

some point in technology therefore to underline the importance of technology in the lessons can help our students for their academic career as well as their personal development.” She emphasizes that the goal isn't necessarily to make students experts, but rather to effectively integrate technology into lessons to foster relevant skills extending its benefits beyond academic success to personal development.

Another participant, namely Participant 3, underlined that technology is the most important skill with the following words “About this technology proficient students, they are more proficient than us I guess and because they were born in a century of technology so they know more than I guess.” She also gives the idea that teachers should improve themselves. EFL classrooms that don't leverage technology might be failing to prepare students for the realities of using English in a globalized world. It's important to consider how technology is used strategically to support language learning goals, while also ensuring teachers have the necessary support to integrate it effectively.

Participant 6 is another instructor focusing on the importance of technology. She says that “And we have to make students equipped for new things and they cannot do this using old methods so technology is important because the 21<sup>st</sup> century means technology so they should be aware of this as well.” This statement emphasizes the need for EFL instructors to be well-versed in 21<sup>st</sup> century skills themselves. In order to effectively teach these skills to their students, instructors need a strong foundation in these areas. She also continues her words as in follows:

After the pandemic I think we got better because we had to use Zoom, before that we didn't know that even that existed. You know we heard about it so so I think the pandemic made us well equipped for the new century.

She highlights how the pandemic accelerated the adoption of digital communication tools like Zoom, which were previously underutilized or unknown to many. The necessity to adapt to remote work and virtual meetings during the pandemic has equipped people with skills and

technologies that are essential for the 21<sup>st</sup> century, fostering a more digitally literate and connected society.

Similarly, Participant 8 supports her idea of technology being the most important skills for this century by stating “I think as I have mentioned before you know we are in the era of digital, we are in a digital era, so I think technology is something that we cannot avoid.” She is of the opinion that given the dominance of technology in today's world, it's clear that embracing and utilizing it is no longer optional. We live in a digital era, and technology has become an essential part of our lives. Participant 9 shares the same viewpoint by stating “I think all of them are important but technology is I think the most important one.”

Participant 12 also defended the idea that technology is one of the most important skills with the following words:

I think all of them are like equally important. And because using technologies is like a part of our lives nowadays so if you don't know anything about technology, and it's impossible for you to have a place to make a place in the community.

She emphasizes the increasing role of technology in our lives, suggesting that lacking technological literacy can hinder one's ability to participate in society. People with limited technological skills can still participate in society, however, they might face some challenges. Overall, she claims that technology is increasingly important for participation in society. Nevertheless, she also highlights the importance of a balanced approach, where technology is seen as a tool to enhance other skills and promote overall participation in the community.

Another participant puts emphasis on the necessity of technology in the classroom. Participant 14 says that “Technology use is also important. In today's world students do everything with technology I mean they're using iPads and computers so traditional methods are not good for them so they may get bored so teachers should improve themselves.” The participant emphasizes the importance of integrating technology into education, arguing that traditional methods alone might not engage students accustomed to using devices like iPads

and computers. She highlights the importance for an approach that combines technology with effective teaching practices to create a well-rounded learning experience by acknowledging the ongoing need for teacher development in how to effectively utilize technology in the classroom.

The potential of technology to enhance language learning in the 21<sup>st</sup> century is the idea asserted by the Participant 15 in the following words “The use of technology in language classes in my understanding have some significant importance because the learners nowadays in the 21<sup>st</sup> century mostly learn from the media around them right.” Technology offers benefits beyond simply mimicking media. It can create a more engaging learning experience that builds upon students' existing media fluency. Overall, by harnessing learners' existing media habits and using technology strategically, educators can create a more engaging and effective learning environment.

The last participant focusing on the importance of technology as the meaning of 21<sup>st</sup> century skills is the Participant 16. She claimed that:

I think the most important one would be the use of technology because if the students are proficient in using technology, they can be autonomous. They can just go and look for information and they can be creative by collecting different kinds of sources. I would say technology, I guess.

Technology skills are the most crucial factor for Participant 16. According to her, proficient technology users become autonomous learners, and they can independently research information, collect diverse sources, and foster creativity in their work. She highlights more benefits of technology skills beyond just information access, which includes the ability to gather diverse sources for a comprehensive understanding.

The third sub-theme is the *Need to Adapt to the Century*, which emerged from the data under the theme, *Understanding of the 21<sup>st</sup> Century Skills*. Some of the participants commented on this theme by acknowledging the need for keeping up with the time. When they



were asked a question about their knowledge level of the 21<sup>st</sup> century, most of them knew the terms but the details required to be improved is the statement asserted by the participants. Participant 3 said that “I just know the broad terms. I don't have any detailed information about the 21<sup>st</sup> century skills, I think it is necessary to learn them to keep up with the changes.” She is aware of the importance of 21<sup>st</sup> century skills and believes learning about them is crucial to adapt to the ever-changing world. Participant 7 criticizes himself in terms of his knowledge on 21<sup>st</sup> century skills and the areas he needed for improvement by asserting:

I think I am not terrible at them, I think I'm fairly good at them good at using them, but in the case of for example leadership I'm afraid I do not have a lot of knowledge I think that's a point that I can just be you know I can improve myself in order to fit in this century.

For the Participant 9, again there is a need to keep up with the date ,which is obvious from the words of her. She said that:

I can't say I am being the member of Gen X I feel that I'm lacking in both the knowledge and practice of these skills but I'm trying to you know learn here about them. Learn from my students I read I see things sometimes I have talks and I attend different talks.

She reflects her recognition of a generational gap in digital or modern skills and their proactive approach to bridging this gap. By engaging with younger individuals, reading, observing, and attending talks, the speaker is demonstrating a commitment to adaptation to the century. She underscores the importance of adapting to the century, especially in rapidly evolving technological landscapes. She also highlights the value of intergenerational learning, where older generations can gain new skills and perspectives from younger ones. Overall, she reflects on her skillset and her effort to learn and adapt.

Participant 14 is aware of the fact that they need to change themselves and adapt to the century. She supports this idea by saying:

I guess 21<sup>st</sup> century skills are the skills that a teacher should meet in the country because this century needs something different. It has some different requirements but these requirements are for the student's learning so that's why they should just improve themselves and they should just adjust their current situations according to the century that we live in.

She emphasizes the necessity for educators to evolve in response to the changing demands of the 21<sup>st</sup> century. She recognizes that modern education requires a different set of skills, which are essential for effectively teaching today's students. By highlighting the need for teachers to continuously improve and adapt, it underscores the dynamic nature of education and the importance of staying current with new teaching methods and technologies.

Participant 15 was in the opinion that he also needs to adapt himself, which can be seen from the following words of him:

I can't say that I'm fully knowledgeable but as to technology use yeah, I can say I still need to learn a lot because there is I believe there are a lot of things there are a lot of things that we can benefit from. It could be social media, it could be online teaching and learning tools etc. I believe I should know more about them but as to the collaboration and critical thinking I think I'm good enough.

This participant acknowledges a gap in technological proficiency while recognizing the importance of continuous learning in this area. He understands the potential benefits of various digital tools, indicating an awareness of the need to integrate these technologies into their skill set. This highlights the importance of educators being open to lifelong learning and adapting to new tools while leveraging their strengths in interpersonal and cognitive skills to enhance their teaching effectiveness. Overall, he highlights the importance of continuous learning and personal growth to adapt to the century.

4C, namely communication, collaboration, critical thinking, and creativity, are an integral part of education, which also emerged here as a code for the qualitative data.

Participants stated their opinions about 4Cs and the place of them in the 21<sup>st</sup> century to explain their understanding of these skills. Participant 1 explained her viewpoint by stating the role of 4Cs in the work life and daily life:

I think three of them are important: critical thinking, creativity and collaboration. Collaboration is a kind of must for students, critical thinking is important to be able to adapt to new situations especially in the workplace as I have mentioned at the beginning of the speech, and to be able to improve themselves in their profession creativity is really important.

These three skills—critical thinking, creativity, and collaboration—are indeed fundamental in today's dynamic world. Collaboration fosters teamwork and collective problem-solving, which are crucial in both academic and professional settings. Critical thinking enables individuals to navigate and adapt to new challenges, ensuring they remain effective and relevant in their careers. Creativity drives innovation and personal development, allowing professionals to excel and bring fresh perspectives to their fields. Emphasizing these skills in education can significantly enhance students' readiness for the future.

Participant 2 also emphasizes the role of collaboration in learning and teaching with the following words “Actually yes all of them are important but the most important ones I think the integration collaboration in learning and teaching.” Participant 5, another proponents of 4C, expresses that she sees these skills as the meaning of the 21<sup>st</sup> century and the most important ones with the following words:

I think the most important of these skills is the critical thinking part because we live in an era of information coming from online sources and coming from everywhere and for example when you read an online news let's say most of the people believe on this directly but if you're a critical thinker you just think about it first and then I don't know you decide on whether it is something worth believing or not. And besides critical thinking I guess creativity and collaboration are necessary. We all need collaboration in our world so we need to work together because we live on the same world.

Emphasizing critical thinking is highly relevant in our information-rich society. It helps individuals discern reliable information from misinformation, which is crucial for making informed decisions. Creativity complements critical thinking by fostering innovative problem-solving and adaptability. Collaboration, on the other hand, is fundamental as it harnesses collective strengths and fosters unity in tackling shared challenges. Together, these skills prepare individuals to navigate and thrive in a complex, interconnected world.

Again the importance of 4C was put forward by another participant by putting the emphasis on the critical thinking, Participant 7 says that:

I think the significant one is critical thinking because at the end of the day they will be able to use a cellphone ok in however way they do it but critical thinking, it is something which needs a lot of guidance from a teacher or from the facilitator and without it you know your studies will have no sense in my opinion.

His perspective rightly underscores the pivotal role of critical thinking in education. While technical skills, such as using a cellphone, can be acquired relatively easily, critical thinking demands structured guidance and continuous practice. It is essential for understanding, analyzing, and synthesizing information, making education truly meaningful. By fostering critical thinking, educators equip students with the tools to navigate complex problems and make informed decisions throughout their lives.

Participant 8 focuses on the importance of collaboration as a 4C skill with the following words “We are social beings and we are not alone. I think effective teamwork and collaboration might be the most important one.” Participant 9 is also a proponent of collaboration together with creativity. She asserts that:

Critical thinking would be my number one. Effective communication skills definitely and then to be able to solve problems creatively and in collaboration, done with other people of course teamwork is important because they are not going to be working or I said work again but they will be doing that with other people so they need to be able to do

that now, some of the things could be individual but mostly they need to work in collaboration with others.

Similar to the previously mentioned participants, Participant 11 is also in the opinion that 4C skills are the meaning of 21<sup>st</sup> century and really important, which is seen from the following words of him "Actually I cannot separate one from the others however the most important ones let's say are critical thinking creativity collaboration I think these three are important that's why I try to incorporate them into my lessons." He recognizes the interdependence of critical thinking, creativity, and collaboration, and highlights a holistic approach to education. By integrating these skills into lessons, educators can foster a more comprehensive and effective learning environment. Critical thinking enhances problem-solving abilities, creativity encourages innovation, and collaboration builds teamwork and communication skills. Together, they prepare students to face complex challenges and succeed in various aspects of life.

Participant 12 focuses on 4Cs by saying "Critical thinking and problem solving, we did not attach a lot importance to these skills in the past but I think these are really important as well. So I also think all of them are equally important." Similar to this participant, Participant 13 also put emphasis on one of the 4Cs by saying that "In order to be successful in this life you must be creative you must be different from other people so creativity can be the most important skills we can say actually." Participant 14 focuses on critical thinking saying:

I think critical thinking is quite important because this critical thinking is also related to autonomous learning if a person can critically approach to his or her own work then this person will get the idea of how to evaluate something or how to evaluate himself or herself and this will make that person autonomous in his in the next stage of his life let's say. so I think that's important.

She emphasizes the connection between critical thinking and autonomous learning. Critical thinking not only enhances the ability to analyze and improve one's work but also cultivates self-reliance. This independence is vital for personal and professional growth, enabling

individuals to navigate future challenges effectively. Encouraging critical thinking in education equips learners with the tools to become self-sufficient, lifelong learners.

To explain the theme *Understanding the 21<sup>st</sup> Century Skills*, the last category to be covered here is *Importance for Teachers*. In the rapidly evolving landscape of the 21<sup>st</sup> century, the skills necessary for success extend beyond traditional academic knowledge. Understanding these 21<sup>st</sup> century skills is crucial for educators who aim to prepare their students for the demands of modern life and work. Participant 1 expressed her views on this issue as follows:

Yeah I think these skills are necessary and important for everybody for experienced teachers as well. To be able to develop ourselves in our profession, to be able to adapt to, you know, new teaching methods, to be able to create a fruitful teaching and learning atmosphere, yeah I think it is necessary not only for teachers but for everybody.

This participant highlights the universal importance of 21<sup>st</sup> century skills. For experienced teachers, these skills are vital for continuous professional growth and staying current with evolving educational methodologies. They enable educators to foster an engaging and effective learning atmosphere, benefiting both teachers and students. By emphasizing that these skills are necessary for everyone, the statement underscores their broad relevance in personal and professional contexts, advocating for a holistic approach to lifelong learning and adaptability.

Participant 3 focuses on a similar idea and emphasizes the significant role teachers play in the future of education in her interview:

I think these skills are important for teachers because they are the future of our education system so encouraging them to learn about the 21<sup>st</sup> century is preliminarily important and by this way we can have more how could I say more successful teachers maybe yes because they can integrate themselves easily in the situation and they can easily get adapt to new environment after getting these century skills.

By acquiring 21<sup>st</sup> century skills, teachers not only enhance their own professional capabilities but also contribute to a more dynamic and effective education system. These skills enable teachers to seamlessly adapt to changing educational landscapes, incorporate innovative teaching methods, and create enriched learning experiences for students. Promoting 21<sup>st</sup> century skills among educators ensures that they remain relevant and effective, ultimately leading to a more successful and adaptable education system.

Participant 5 showed her viewpoint on the importance of 21<sup>st</sup> century skills for teachers and said that “I'm very familiar with this kind of skills but most of the teachers in our institution, they need to know these skills first and they need to give importance to these skills.” While some educators may already possess an understanding of essential skills, there is often a gap in knowledge among their peers. Emphasizing the need for all teachers to learn and value 21<sup>st</sup> century skills is crucial for fostering a cohesive and forward-thinking educational environment. By ensuring that all teachers are equipped with these skills, institutions can promote a more unified approach to teaching, ultimately enhancing the learning experience for students and better preparing them for future challenges.

Another one, participant 12, emphasizes the importance of equipping teachers with the necessary skills to educate a generation of digital natives effectively:

When we look at the generation you know new generation at school, they are born they are digital natives you know if you're trying to teach those people you need to be you know as knowledgeable as possible so you can direct them in this process so in in-service training I think these skills should definitely be included to make the learning process of the students more efficient.

She underscores the importance of teachers being well-versed in 21<sup>st</sup> century skills to effectively educate a generation that has grown up with technology. As students today are inherently familiar with digital technology, teachers must be proficient in 21<sup>st</sup> century skills to meet their needs and provide relevant guidance. By learning and enhancing these skills, teachers can create a more engaging and efficient learning environment, ensuring that they

can meet the needs and expectations of their tech-savvy students. This approach not only facilitates better learning outcomes but also helps bridge the gap between traditional teaching methods and modern educational demands.

Participant 13 highlights the importance of 21<sup>st</sup> century skills for the teachers by saying that:

If it is important for the students so it must be for teachers because they are hand in hand. if I want my students to use technology I should do this in the same amount. so of course it is important for teachers.

By recognizing that teachers and students are intertwined in the learning process, it underscores the necessity for educators to adopt the same technological tools and practices they encourage in their students. This not only sets a positive example but also ensures that teachers can effectively guide and support their students in navigating the digital landscape. Embracing technology is essential for teachers to stay relevant and effective, ultimately enhancing the overall educational experience.

Similarly, participant 14 states her opinion by underscoring the necessity for teachers to stay updated with modern educational tools and methods:

I think it's important at least they should have the idea of those kind of things I think that in service teachers must probably know many of them cuz you know they just new generation and they get used to using those technological tools and think creatively. This is what we learned in our schools these days. I think it is important cus they they can answer the needs of the students better.

Familiarity with technology and creative thinking is increasingly becoming a standard expectation for educators, particularly among newer generations of teachers who have been exposed to these skills during their own education. By understanding and utilizing these tools, teachers can more effectively engage their students and cater to their learning needs. This not



only enhances the learning experience but also ensures that education remains relevant and responsive to the evolving demands of the digital age.

Participant 15 captures the necessity of learning and improving himself in terms of 21<sup>st</sup> century skill. He said that:

I totally believe it's necessary because times are changing and we as language instructors we should be changing as well in order to deal with the new generation right every year we believe the generation gap between us more and more so in order to keep up with the changing Trends and we should we should have some training in terms of 21<sup>st</sup> century skills.

As societal and technological advancements reshape the learning environment, educators must adapt to remain effective. The widening generational gap highlights the importance of staying current with new methodologies and tools. Training in 21<sup>st</sup> century skills equips teachers to bridge this gap, ensuring they can engage and educate students who are growing up in a vastly different world. This proactive approach is crucial for maintaining relevance and fostering a productive learning atmosphere.

The 2<sup>nd</sup> theme explored was the *Need for Training*, which is also the answer to the third research question: “What is the EFL instructors’ self-perception of their 21<sup>st</sup> century skills knowledge? As our society becomes increasingly complex and interconnected, there is a growing recognition that traditional educational approaches are insufficient in preparing students for the challenges they will face in the future. Therefore, there is a critical need for teacher training programs to equip educators with the knowledge and skills necessary to effectively cultivate 21<sup>st</sup>-century skills in their students. Teachers need training not only in incorporating technology into the classroom but also in fostering creativity, promoting critical thinking, facilitating collaboration, and developing students' digital literacy. By investing in teacher training focused on 21<sup>st</sup>-century skills, we empower educators to create dynamic learning environments that prepare students for success in the rapidly evolving world they will

inhabit. This theme had three categories namely, *Need Analysis*, *Ongoing Learning* and *Practical Applications*, which were consisted of various codes shown in the table below:

**Table 12**

*EFL Instructors' Need for Training*

Themes	Categories	Codes	Frequency (f)
Need for Training	Need Analysis	Detecting the gaps	4
		The importance of the needs	
	Ongoing learning	Learning from others	2
		Willingness to improve yourself	3
		The necessity of ongoing learning	3
	Practical applications	Workshops for teacher improvement	5
		Practical application of knowledge	3
Expert led training		2	

To delve into this topic, the main theme was categorized under three headings: *Need Analysis*, *Ongoing Learning* and *Practical Applications*, and the relevant excerpts from the interviews are presented here. The first point to be stated here is *Need Analysis*. Participant 2 focuses on this and notes that:

Firstly before teaching them we should know them. Whether there is something about 21<sup>st</sup> century skills acaba. Do all the teachers know something about it, firstly we should detect it. After that after the teachers gaining an how can I say awareness about it they may do something for students but firstly we should know what they actually are.

She emphasizes the importance of teachers understanding 21<sup>st</sup>-century skills before they can effectively incorporate them into their teaching. Indeed, before educators can impart these skills to their students, they need to be aware of what 21<sup>st</sup>-century skills entail and how they can be integrated into the curriculum. It underscores the need for professional development

and awareness-building among teachers regarding the significance and relevance of 21<sup>st</sup>-century skills in today's education. By knowing and understanding these skills themselves, teachers can better prepare students for the demands of the modern world.

Participant 4 demonstrates his stance on this issue with the following sentences "If there is such an urgent need for the lecturers or teachers. As well as considering the conditions in our own department this can be not completely necessary but why not." He talks about whether it is urgently needed to be trained on 21<sup>st</sup> century skills or not. While acknowledging the pressing need for such training, he suggests that it may not be entirely necessary based on the specific conditions within their department. However, he also implies that it wouldn't hurt to pursue such training since it's crucial to recognize that the demand for 21<sup>st</sup>-century skills in education is driven by the rapidly evolving demands of the modern world. These skills are essential for students to thrive in a global, knowledge-based economy. Therefore, providing teachers with training in integrating 21<sup>st</sup>-century skills into their teaching methods is crucial for ensuring students' preparedness for the future.

In a similar vein, Participant 5 has the idea that teachers need analysis for training by explaining her view with the following words:

Yeah we all need to learn about these skills first because sometimes in a reading book or in a textbook there are some kind of topics related with the environment for example or so we need some kind of mutual understanding about all kind of nationalities living in this world so we need training to know about these skills first and then we can use them in the classrooms.

Training educators on 21<sup>st</sup>-century skills can lead to more engaging and effective teaching practices, better student outcomes, and increased relevance of education to real-world contexts. Additionally, such training can enhance teachers' professional development and job satisfaction. Building mutual understanding among teachers is crucial in today's interconnected world, requiring educators to discover the knowledge of these skills in order to equip them with the relevant skills and training to foster such understanding in the classroom.

Therefore, while it may not be absolutely necessary in all cases, investing in training for educators on 21<sup>st</sup>-century skills can bring numerous advantages and contribute to the overall quality of education provided.

Similarly, Participant 10 acknowledges that teachers need to understand what 21<sup>st</sup> century skills are and why they're important. In other words, she highlights the need for teacher awareness with the following words:

Yes maybe our professional development units may help us because first we need to be aware of what they mean what are these 21<sup>st</sup> century skills and then we should be able to find out why we need them for example critical thinking what does it mean and and why we should use them in our classes and how we can use it in our classes sometimes you know about something.

She emphasizes the need for a foundational understanding of 21<sup>st</sup>-century skills before integrating them into educational practices. The focus on critical thinking exemplifies the broader necessity of not only knowing what these skills are but also appreciating their relevance and application in teaching environments. This approach ensures that educators can effectively cultivate these skills in their students, enhancing their overall learning experience and preparing them for future challenges.

Participant 14 suggests observing teachers to identify their areas of difficulty and she proposed a tailored approach to professional development for teachers, emphasizing the importance of identifying and addressing individual strengths and weaknesses. She noted that:

Perhaps we can just personally observe those teachers and try to detect their problematic areas cuz for example they can be good at collaboration but they may not good at creativity so we shouldn't teach them how to create collaboration in the class we don't need it but we can just teach them how to think creatively or just make the creativity a core concept in their own classes.

By focusing on areas where teachers need improvement, such as creativity, rather than on skills they already excel in, professional development can be more efficient and impactful. This personalized strategy can lead to more effective teaching practices and a richer learning experience for students.

*Ongoing Learning* is the other point to be touched upon here. Participant 1 here puts emphasis on the importance of ongoing skill development for teachers. She said that:

For example here you know we teachers as the professional development unit we are carrying out some different projects. class observation, reflective teaching or carrying out some action research etc. With regard to the reflective teaching for example they are sending me some videos of the courses ok I watch the videos they also watch themselves later we come together and talk about the courses this is a kind of cooperative work as well. It also develops our cooperative learning skills.

She highlights the active engagement of teachers in professional development activities, specifically through reflective teaching. By reviewing and discussing classroom videos, teachers participate in a collaborative process that fosters mutual learning and improvement. This hands-on approach fosters a deeper understanding and application of these skills, making professional development more effective and relevant to modern educational needs. This approach not only strengthens their teaching practices but also enhances their cooperative learning abilities, demonstrating the value of reflective and collaborative professional development.

Participant 3, similarly, focuses on teacher improvement in terms of 21<sup>st</sup> century skills. She commented that:

I think it's important because they are the future of our education system so encouraging them to learn about the 21<sup>st</sup> century is preliminarily important and by this way we can have more how could I say more successful teachers maybe yes because

they can integrate themselves easily in the situation and they can easily get adapt to new environment after getting these century skills.

She underscores the importance of equipping teachers with 21<sup>st</sup>-century skills, emphasizing their role in shaping the future of education. By fostering these skills, teachers become more adaptable and better prepared to navigate changing educational landscapes. This ongoing learning process not only enhances their professional success but also ensures they can effectively integrate contemporary skills into their teaching practices, benefiting students and the broader education system.

Similarly, Participant 8 states her view by agreeing that in-service teachers must continually update their skills. She said that "I think I'm quite good at technology, using technology efficiently in class but still I think there is a lot I can learn about it so I strongly agree with that. We in-service teachers need to update ourselves regularly." She highlights the necessity of ongoing learning for teachers, particularly in the realm of technology, which is a critical 21<sup>st</sup>-century skill. Despite proficiency, the rapid evolution of technology demands continuous professional development to stay current and effective. This mindset underscores the importance of lifelong learning in teacher training, ensuring educators remain adaptable and well-equipped to integrate new tools and methods into their teaching practices.

Participant 9 emphasizes the importance of ongoing learning and professional development for teachers in mastering 21<sup>st</sup>-century skills. She stated that:

I felt much better we all felt much better after we learned so about all those skills that we've mentioned we have to be trained or if we already know them we have to I don't know we have to polish them listen again and again so that we never forget and we we are going to practice it's like you hear something on yourself I remember that why didn't I do that do that that in my class or sometimes for some time so we need in service training.

She reflects a commitment to continuous improvement, recognizing that even known skills need regular reinforcement and practice. Her viewpoint ensures that teachers remain adept and confident in applying these skills, ultimately enhancing their effectiveness in the classroom and contributing to a more dynamic and adaptive education system.

Participant 10 highlights the necessity of ongoing learning and professional development to ensure teachers remain well-informed and capable of integrating these skills into their teaching practices. She added that “I think we need more information about this. We need to get more information and it is of course important for all instructors to know about them and to be able to use them.” She emphasizes the importance of acquiring more knowledge about 21<sup>st</sup>-century skills for educators and the importance of continuous learning and professional growth to ensure that teachers stay knowledgeable and adept at incorporating these skills into their teaching methods. By continuously updating their knowledge and skills, educators can better prepare students for the demands of the modern world.

Participant 15 also stresses the importance of adapting to change in education, especially considering the widening generation gap and evolving trends. He said that:

I totally believe it's necessary because times are changing and we as language instructions we should be changing as well in order to deal with the new generation right every year we believe the generation gap between us more and more so in order to keep up with the changing trends and we should we should have some training in terms of 21<sup>st</sup> century skills.

He underlines the necessity for continuous professional development, particularly in 21<sup>st</sup>-century skills, to ensure educators remain relevant and capable of meeting the needs of their students. In other words, his call for training in 21<sup>st</sup>-century skills reflects the understanding that educators must evolve their teaching approaches to remain relevant and effective. It is vital for maintaining the effectiveness of teaching practices in the rapidly changing educational landscape. This proactive attitude towards professional development is essential for ensuring high-quality education and student success in an ever-changing world.

Last subcategory of the theme *Need for Training* is *Practical Applications*. Participant 1 focuses on the need for practical application to train teachers in order to improve their understanding of the 21<sup>st</sup> century skills. She emphasizes the need for support and guidance from educators to effectively integrate 21<sup>st</sup>-century skills into teaching practices. Her views on this issue are as follows:

I think we need some educators who will provide us with enough info. First of all I must be informed about it, let's say creativity or technology, as a teacher. I should be persuaded ok to learn something about it and later they should give me some info about how to integrate it into my class effectively through you know some useful beneficial tasks activities applications etc. so in this way I can integrate it into my class effectively or I can help my students to develop each skill effectively.

She highlights the importance of teacher training programs that not only provide information but also offer practical strategies for implementation. By empowering teachers with the knowledge and tools necessary to integrate these skills, educators can better equip students for success in the modern world. This approach emphasizes the role of ongoing learning and professional development in fostering effective teaching practices.

For the Participant 3, it is seen that she acknowledges the difficulty in staying updated with the constant influx of new information and resources. She noted that "We learn new things and we have new sources so it is not easy to pull up every new thing so getting lessons about it can be helpful for us. I think workshops are really valuable at that point." Workshops are seen as valuable opportunities for educators to gain knowledge and skills needed to integrate 21<sup>st</sup>-century skills effectively. This reflects the importance of continuous professional development in keeping teachers informed and competent in their teaching practices. Workshops offer a hands-on approach to learning and can provide practical strategies that teachers can implement in their classrooms.

Participant 5 mentions the importance of familiarizing teachers with the 21<sup>st</sup> century skills first, following this some practical activities should come.



First we need to be informed about these skills what are these skills I don't know I know about the collaboration technology and global awareness creativity critical thinking but can't say about these I don't know if there are more skills that I need to know to use in my class and first we need to know about this skills and then there can be some kind of workshops or seminars I don't know these kind of training we can use the skills and then we can go to our classroom to use them in the classrooms as well.

She underscores the importance of knowing and understanding 21<sup>st</sup>-century skills before integrating them into teaching. This highlights the need for comprehensive teacher training programs that cover various skills and their practical applications. Workshops and seminars offer valuable opportunities for educators to gain hands-on experience and strategies for incorporating these skills into their teaching.

Another participant who focused on the importance of workshops for training is Participant 6. She said that "Sometimes we do not know the new applications or stuff like that so for example I learned about Google classroom in an in-service training and I learned it from there, so it was very beneficial for me." This participant highlights the significance of ongoing teacher training in familiarizing educators with new tools and technologies. This underscores the practical value of professional development sessions in enhancing teaching practices. It emphasizes the importance of staying updated with modern educational tools and platforms to effectively meet the needs of students in the 21<sup>st</sup> century.

Another one of the advocates of workshops is Participant 7. He discusses the benefits of professional development opportunities, such as online training courses and workshops by adding:

Our school provided an oppo to train ourselves provide by Cambridge universities department about the use of technology in education for example mostly so it was a kind of modular training courses which was provided online so the same could apply for example teaching in-service teachers leadership or critical thinking so such sort of online training sessions or online training let's say modules can be helpful or

workshops could be useful for teachers to improve their skills. So yeah workshops, maybe seminars for example.

Online training sessions are crucial for enhancing teachers' skills in areas like technology integration, leadership, and critical thinking, aligning with the demands of 21<sup>st</sup>-century education. The mention of workshops and seminars underscores the importance of hands-on learning experiences and collaborative discussions in teacher training, facilitating effective skill development.

In a similar vein, Participant 8 emphasizes the need for practical, hands-on training in utilizing technology, rather than just theoretical instruction. She noted that:

Okay I might have some theory about it but in practice I'm not sure if I can do it. So I think especially about technology component of this 21<sup>st</sup> century skills we need applicable workshops, I am not talking about listening to his zoom conference or video just listening to someone telling what to do or what not to do, I think we need a workshops in practice. I should have the opportunity to use the technological application the trainer is telling me.

She stresses the importance of hands-on training in using technology, highlighting its practical application over mere theoretical teaching. This method aligns with the principles of effective teacher training, ensuring educators have the opportunity to actively engage with the tools and applications they will be using in their classrooms. Practical workshops provide valuable experience and confidence, essential for successfully integrating technology into teaching practices and fostering 21<sup>st</sup>-century skills in students.

Participant 11 also wants to see more practical aspects of 21<sup>st</sup> century skills. He pointed that:

If I had if I could see more practical sides of 21<sup>st</sup> century skills just because like the question you asked, how can you integrate collaboration into your teaching? Maybe

that can be some real like actual practice, authentic practices the teachers can the attendees can benefit from it would be something great I think.

He highlights the importance of practical experiences in teacher training, especially when it comes to integrating 21<sup>st</sup>-century skills like collaboration into teaching practices. This emphasizes the need for interactive sessions and authentic learning experiences that allow educators to directly apply what they learn. Such practical approaches are crucial for effectively preparing teachers to implement these skills in their classrooms.

Utilizing a traditional method of teacher training by inviting experts in the field to educate in-service teachers about 21<sup>st</sup>-century skills is the idea of Participant 12. She said that “Again the old format maybe can work out like bringing in some people who are experts in the field and teaching the in-service teachers about these concepts.” While this approach can be beneficial, it's essential to ensure that training sessions are interactive and provide practical strategies for integrating these skills into teaching practices. Combining expert knowledge with hands-on activities can enhance the effectiveness of teacher training programs in preparing educators for the demands of modern education.

Participant 14 suggests various strategies for teacher training, emphasizing the importance of hands-on experiences and exposure to diverse teaching methods. She elaborated on the subject with these words:

I think they need training but to train them for example some workshops can be quite beneficial so we can make them observe other teachers' classes but those classes should be different. I mean they shouldn't observe a teacher who is the same age as them. I mean there should be an age gap there cuz they can learn more and more from the others. we can also invite some guest speakers and they can just tell us about how to do something or for the technology perhaps we can give them a list technology a list of technological tools that they can use in the classes and perhaps they can tick on the things that they do not know and we create a workshop and a training here. I think those kind of things can be quite beneficial.

The idea of observing classes taught by teachers of different age groups promotes learning from diverse perspectives. Additionally, involving guest speakers and providing technology training tailored to teachers' needs can enhance their skills in integrating 21<sup>st</sup>-century skills into teaching. This comprehensive approach to teacher training ensures that educators are well-prepared to meet the challenges of modern education.

Last but not the least, Participant 16 suggests the usefulness of workshops in understanding how to effectively incorporate 21<sup>st</sup>-century skills into classroom teaching. “Maybe some workshops will be practical to have an idea about what could be the reflections of teaching 21<sup>st</sup> century skills into the classroom. I think that will be useful,” she adds. Workshops offer a hands-on approach, allowing educators to explore practical strategies and receive guidance on implementing these skills in their teaching practices. This proactive approach to teacher training ensures that educators are better equipped to prepare students for success in the modern world.

### ***Diverse Teaching Practices***

The third theme emerged from the qualitative data was *Diverse Teaching Practices*, which actually answered the fourth research question which was aiming to find an answer to the question: What are the 21<sup>st</sup> century skills implementations of the EFL instructors? and 4.a. What are their teaching implementations? When we dive into the theme *Diverse Teaching Practices*, five sub-categories were acquired during the analysis to reach the main theme, which were namely, *Skills integration into teaching*, *Technology integration*, *Project-based learning*, *Collaborative Activities*, and *Teachers' role*. These categories were represented below with the codes and frequencies of them.

**Table 13**

#### *EFL Instructors' Diverse Teaching Practices*

Themes	Categories	Codes	Frequency ( <i>f</i> )
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Diverse Practices	Teaching	Skills integration into teaching	Incorporating critical thinking	3
			Fostering skills in class	2
			Creative writing	1
		Technology integration	Utilization of technological tools	10
			Online teaching	2
		Project-based learning	Technology use for project work	3
			Classroom-based implementation	1
		Collaboration activities	Improving collaboration	5
			Use of group work activities	4
			Collaborative writing	2
	Teachers' role	Important supplementary role	2	
		Teacher as a facilitator	4	

For the skills integration into teaching, Participant 1 said that:

With regard to the 21<sup>st</sup> century skills how can we develop their communication skills. I try to integrate technology into my speaking courses as well. for example, I integrate learner podcasts, I use podcasts in my courses not only to develop my students' listening abilities but to develop their speaking abilities. Or while teaching vocab I am trying to integrate coca corpus into my courses while discussing on a specific vocab for ex whether it can be used in a specific context or not in a specific way we generally connect to the coca in pairs in groups or as a whole class activity and we make searches on the particular word adj adv and we see how it is used in a particular context.

Her teaching approach leverages technology to enhance communication skills, aligning with 21<sup>st</sup> century educational goals. By incorporating learner podcasts, students engage in active

listening and speaking practice, which are crucial for language development. Using resources like the COCA corpus for vocabulary teaching allows students to explore real-world language usage, fostering a deeper understanding of context and application. This method encourages collaborative learning and critical thinking, as students work together to analyze and discuss language. Integrating these tools and techniques not only makes learning more interactive and engaging but also equips students with practical skills for effective communication in the digital age.

Participant 5 contributes to this theme by highlighting the inherent challenge of directly teaching 21<sup>st</sup> century skills while emphasizing the resources available to language teacher with the following words:

I don't know it's not something very easy to arrange activities directly I don't know directly teaching these 21<sup>st</sup> century skills but when you since we are language teachers, we have lots of materials and lots of activities on our coursebooks and then and these course books are designed by let's say successful universities like Oxford or Cambridge and then they designed or they develop their curriculum based on these kind of skills I guess in the classroom we make activities like we give them some kind of projects or we give them, the students, some kind of homework that need to be worked together so they learn collaboration.

She asserts that coursebooks from reputable institutions often integrate these skills into their curriculum, providing a structured approach to developing them. By utilizing these resources and incorporating projects and collaborative assignments, teachers can foster essential skills such as collaboration in a practical context. This approach not only leverages the expertise embedded in high-quality educational materials but also creates opportunities for students to practice and develop these skills in meaningful ways. Integrating 21<sup>st</sup> century skills through existing curricula and activities makes the process more manageable and effective.

Participant 7 thinks that to integrate skills into teaching, especially for the writing tasks, assigning writing tasks on specific topics is an effective way to cultivate creativity in students.

He claims that “For example I can ask them to write a piece of writing about a given topic so which in turn improves their let’s say ability to use their creativity in writing let’s say.” His way of thinking not only develops their writing skills but also encourages them to think imaginatively and express their ideas uniquely. By engaging in creative writing, students learn to explore different perspectives and articulate their thoughts more effectively. This method aligns well with the broader goal of fostering 21<sup>st</sup> century skills, as creativity is a crucial component in problem-solving and innovation. Through such assignments, educators can provide students with valuable opportunities to practice and refine their creative abilities.

Participant 8 looks at the topic from another viewpoint by underscoring the importance of critical thinking as a pathway to creativity, and she says that:

Being creative you know I don't do something specifically. I just don't tell them ok this is an exercise to improve your creativity but I like asking them critical questions all the time as my students are quite good in speaking in English so I really like initiating their critical thinking which leads them to be creative in the end.

By engaging students with thought-provoking questions, she stimulates deeper cognitive processes that naturally lead to creative outcomes. This method avoids the direct and sometimes forced approach of explicitly targeting creativity, making the development of creative skills more organic and integrated into regular classroom activities. Encouraging critical thinking not only enhances students' analytical abilities but also paves the way for innovative and creative problem-solving. This strategy is particularly effective for students who already have a strong foundation in language skills, as it challenges them to apply their knowledge in more complex and imaginative ways.

Similarly, Participant 9 also focuses on critical thinking by emphasizing the importance of it in their curriculum particularly when it comes to reading comprehension. She says that:

There's focus on critical thinking especially with reading skills. For instance we do that a lot and I'm happy that they need to really read things and beyond comprehension

they need to critically think and question what is being said. That's what our course books do a lot.

She highlights the essential integration of critical thinking into reading exercises. Moving beyond mere comprehension to analyze and question the text enriches students' understanding and fosters a deeper engagement with the material. Coursebooks designed to encourage this level of interaction play a crucial role in developing critical thinking skills. This method not only enhances reading proficiency but also equips students with the ability to think independently and critically about what they read, a vital 21<sup>st</sup> century skill. Encouraging such analytical reading practices prepares students for more complex intellectual challenges and promotes lifelong learning.

When the teaching practices of instructors were asked, Participant 11 also said that he tries to integrate these skills and adds that:

Critical thinking like we have the cliché saying in ezberci eğitim in Türkiye for the education system in the past especially because of because of that I still see most students have trouble while they're asked a critical thinking question after a reading and listening blah blah because of that I want I try to incorporate that one too and it's something very important.

He actively tries to incorporate critical thinking skills development into their teaching, recognizing its vital importance. He asserts that students are unprepared for tasks requiring deep analysis and critical questioning. By integrating critical thinking into teaching practices, educators can address this gap and help students develop essential skills for independent and analytical thought. This transition is crucial for modern education, equipping students to better understand and engage with complex material and fostering a more robust and adaptable intellect. Emphasizing critical thinking prepares students not only for academic success but also for real-world problem-solving and decision-making.



Apart from the skills integration, *Technology Integration* was also among the most popular topic among the participants as a natural consequence of the age. Almost all of the participants commented on this issue. Participant 1 said that:

So in order to develop something especially with regard to 21<sup>st</sup> century skills, I generally prefer to integrate technology, technology based instructional tools into my courses. and with regard to the writing I am trying to integrate blogs, they really like it. Generally I write a question on a blog for example “to what extent you think online education is beneficial for language learning” or I can write known a well-known quotation from someone famous and they make some comment on the website again so in this way for example through blogs I am trying to develop their both critical thinking and creativity academic writing abilities and again learner autonomy because they are taking the responsibility of their own learning.

She utilizes technology to foster essential 21<sup>st</sup> century skills. By incorporating blogs into writing assignments, students engage in critical thinking and creativity while developing their academic writing abilities. This method also promotes learner autonomy, as students take ownership of their learning process. Such technology-based instructional tools make learning interactive and engaging, aligning with contemporary educational trends. Encouraging students to express their thoughts on relevant topics and famous quotes not only stimulates intellectual growth but also prepares them for the digital age, where effective communication and independent learning are crucial.

Similarly, Participant 3 also gave examples on the technology integration as in the following words “I always use some technological resources in my lesson, designing my lessons I try to combine some website or some educational sources to attract their attention to motivate my learners. Maybe I can encourage them in this way.” According to Participant 3, using technological resources in lessons is an effective strategy to engage and motivate students. By integrating websites and educational tools, educators can make learning more interactive and appealing, catering to the interests of a digitally native generation. This not only

enhances student motivation but also introduces them to valuable digital skills, preparing them for future academic and professional environments. Encouraging students through technology can lead to increased participation and a more dynamic learning experience, ultimately fostering a more positive and productive educational atmosphere.

Participant 6 also utilizes technology promoting both individual practice and collaborative learning. She stated that

I have a Google classroom and whenever we are doing an activities, I copy it and then I put it on the Google classroom and they take your phones and they do the exercises alone at first and then we correct it together going over the questions for example I do that and I use Google YouTube in my classes I try to show the new things to them related to the subjects.

She uses technology to create a blended learning environment that balances independent work with collaborative learning and utilizes multimedia resources for effective knowledge transfer. Using Google Classroom for activities fosters a sense of responsibility and autonomy in students, while reviewing the work together ensures understanding and provides immediate feedback. Incorporating YouTube videos related to the subjects keeps the content current and engaging, catering to diverse learning styles and making complex topics more accessible and relatable. Her choice of technology integration not only makes lessons more dynamic but also equips students with essential digital literacy skills.

With the aim of cultivating responsible and purposeful use of these tools for enhanced learning experiences, Participant 7 integrates technology into his classroom and mentions his practices:

Technologically mostly students actually are better than me in using technological devices but again I encourage them to use abuse for example the free kinds of let's say different kinds of means of technological let's say assets like for example Google docs

for example sharing a file or different kinds of messengers to have a discussion form or something like that this is.

Encouraging the use of collaborative tools like Google Docs and messaging platforms demonstrates a proactive approach to leveraging students' tech skills for educational purposes. He not only facilitates better collaboration and communication but also helps students develop valuable digital literacy skills. By promoting these tools, he can create a more interactive and engaging learning environment, fostering a sense of teamwork and enhancing the overall educational experience.

Again prioritizing fostering technological proficiency in their students is the aim of the Participant 8. She remarked that:

For being technologically proficient, for example in class I don't forbid them, I don't warn them not to use mobile in class I am really I'm fine with that for example sometimes I just can't know the specific pronunciation of a word, I tell them just open Cambridge dictionary and check it. I urge them to use their technological devices in class. Also about their assignments, we most of the time use technological devices. They just record some audio or videos. I let them be free about using technology in class as well. So I think this serves a purpose of making them technologically proficient.

She reflects a positive attitude towards integrating technology into the classroom. Allowing students to use their mobile phones and encouraging them to leverage technology for learning purposes fosters a supportive and adaptable learning environment. By empowering students to use technological resources for tasks such as checking pronunciation or completing assignments, educators help them develop essential digital skills. This way, she not only enhances student engagement but also prepares them for the increasingly digital landscape of the modern world. Providing students with the freedom to use technology responsibly cultivates their technological proficiency and independence, which are valuable skills for their academic and professional futures.

Participant 10 highlights her approach to using technology for active learning by stating that:

They are already I think technology proficient but sometimes I use some applications or websites that may attract their attention. For example we write some sentences about the second conditionals, and I use an online board where they can see each other's responses. And they post their responses as answers to his board. So they can see each other's responses which means something collaborative. If they use something technological then they like it, they enjoy it and I try to get help from some applications like kahoot for example for vocabulary practice or some other websites and applications.

She combines traditional teaching methods with technology to engage students and promote collaboration. Introducing online boards and applications like Kahoot adds an interactive dimension to learning, making it more enjoyable and effective. By using technology in this way, she taps into students' digital skills and interests while providing opportunities for collaborative learning and active participation. She not only enhances student engagement but also reinforces key concepts through interactive exercises. Using technology in education opens up new possibilities for creativity and engagement, enriching the learning experience for both students and teachers.

Using technology in the class is a favorite activity by the instructors; however, Participant 11 uses technology as a strategic tool to prepare students for the demands of the modern world. He remarks that:

I mostly integrate a technological tool and a website an app but the reason is not to create a friendly environment. My aim is to use technology everywhere so if I'm capable of having them use a technological tool or website or whatever you call and if they are still learning why not I mean it's not extra for me it's a must in today's education system but in my opinion.

By emphasizing the use of technological tools, websites, and apps, he aims to enrich the learning experience and prepare students for the digital world. His stance aligns well with modern educational trends, where technology plays a significant role in engaging students and facilitating learning. Embracing technology as an essential part of teaching ensures that students are equipped with the skills needed to thrive in an increasingly digital society.

In a similar way, Participant 12 also integrates technology into the classroom to foster a collaborative and engaging learning environment for writing and review. She says that:

By using Google docs for instance when we're in the writing class you know we had the prompt and we formed groups and everybody in the the group adapted to their own sentences so that they can come up with a full paragraph. I did something like that. what else again maybe using kahoot at the end of the class by letting them remember the things they get in the class. This is like a review of the topic.

She integrates technology to enhance collaboration and reinforce learning. Utilizing Google Docs encourages group collaboration in writing, allowing students to collectively create and refine their work. Kahoot is used as a fun and interactive tool for reviewing lesson content, helping students reinforce their understanding and retain information. She not only engages students actively in the learning process but also provides them with opportunities to work collaboratively and reflect on their learning. Using technology in these ways enriches the learning experience and reinforces key concepts in an engaging manner.

Participant 14 highlights her effort to create a technologically integrated learning environment, even while acknowledging her own limitations with the following words:

For the technological part as I said before I'm not good at with technology but still so we use in the class some games like quizlet or kahoot and kinda things. I can also use jamboard for technology. I mean students just connect on the internet and attend that jamboard class and they present their works there with their classmates. I also do what?

For technology I can also use speaking there. Students can record themselves and send it to me or all those moodle classes and I think these are the things.

She demonstrates a willingness to incorporate various digital tools into the classroom. Games like Quizlet and Kahoot make learning interactive and enjoyable, while platforms like Jamboard and Moodle provide avenues for collaboration and presentation. Encouraging speaking practice through recordings allows for individualized feedback and assessment. These efforts demonstrate a commitment to providing students with diverse learning experiences enhanced by technology. Integrating these tools fosters engagement and reinforces key concepts in dynamic ways.

In a similar vein, Participant 15 underscores the importance of technology integration and gives examples from his class “When then there's a reading activity I tried to incorporate that activity with the padlet so the students can post some comments on there and posted and post re-comments to their peers etc.” Using Padlet during reading activities enhances student engagement and encourages collaboration. He allows students to share their thoughts and interact with their peers' responses, promoting active participation and deeper understanding of the material. Incorporating digital tools like Padlet enriches the learning experience by providing students with opportunities for discussion and reflection beyond traditional classroom methods. It provides a means to leverage technology to create an interactive and dynamic learning environment.

For the *Diverse Teaching Practices*, the other sub theme is *Project-Based Learning*, which is thought to foster 21<sup>st</sup> century skills by encouraging active learning, problem-solving, teamwork, and the practical application of knowledge, thus making it a relevant and effective method for preparing students for modern challenges. When we look at the interview data, it was explored that Participant 1 focused on her approach to integrating technology-based project work in their courses and said that:

I think using tech based project work it is really effective and I generally integrate it into my courses how I generally divide my students into groups I give them a specific topic

or sometimes students are required to decide on a specific topic and as a whole group they carry out a short small research on the relevant topic later ss are required to produce an end product this can be a kind of report or generally I want my students to make presentations as a whole group.

By dividing students into groups and allowing them to choose or be assigned topics, the method promotes collaboration and active learning. Conducting research and producing an end product, such as a report or presentation, reinforces students' understanding and communication skills. This approach aligns well with the development of 21<sup>st</sup>-century skills, including teamwork, digital literacy, and critical thinking. It emphasizes the practical application of technology in educational projects, making learning more engaging and effective.

For the participant 2, it is seen that she has the practices of the project-based learning in her classroom, and she noted that:

Actually, I tried to give them some project-based tasks in this way they learn how to work collaboratively and while doing things they shared the duties and by doing this also so they should use technology to reach the info, separately I mean, that's my answer actually I try to use some project-based task.

She describes the use of project-based learning to teach students collaborative skills. By dividing tasks, students learn to work together while also using technology to gather information independently. She highlights the dual focus on teamwork and technological proficiency, both crucial components of 21<sup>st</sup>-century skills. She emphasizes active learning and the practical application of knowledge, which are key benefits of PBL.

Participant 6 also adds some examples from her classroom practices on project-based learning. She asserted that:

Yes I think the projects that we give them for example we give them story exams and during the stories and some students who they all use the Google classrooms so some

of them put videos, some of them recorded songs so they they use that in the classroom.

She elaborates on the use of project-based learning to integrate technology in the classroom. By assigning projects like story exams, students are encouraged to use digital tools (e.g., Google Classroom) creatively and collaboratively. She not only enhances their technological skills but also fosters creativity and teamwork. She also highlights the practical application of digital resources in an educational setting, which aligns well with the goals of developing 21<sup>st</sup>-century skills.

Participant 13 also focuses on project-based learning but from a different perspective emphasizing the necessity of project work and the importance of classroom-based implementation. She uttered:

In my opinion, project work is essential and must be assigned, but how should we implement it? It should not be done at home; project work should be completed in the classroom. Our students are different from American students. When given take-home exams, American students typically complete them independently at home. However, our students do not collaborate effectively on homework projects. Therefore, many project assignments should be given, but they must be done in the school environment so that they can be properly assessed.

She highlights differences in independent work habits and collaboration of her students with the other countries'. The argument is that projects should be done in school to ensure effective assessment and address the challenges local students face with at-home collaboration. This suggests a belief in the value of guided, supervised project work to enhance learning outcomes.

Apart from the project based learning, collaboration as the core skills of the 21<sup>st</sup> century has been discussed during the interviews too much. Participant 1 described a teaching strategy



where students are divided into pairs or groups to create podcasts on assigned topics and said that:

I generally divide my students into pairs or groups and they are required to create a podcast on a specific topic for ex. they come altogether not in class out of the class and they talk about simultaneously on for ex online education. they discuss about it later we have a website on podomatic they upload their podcast to the website in the class towards the end of the each course.

Meeting outside of class to record their discussions encourages collaboration and independent learning. Uploading their work to a Podomatic website integrates technology and provides a platform for sharing their projects. She not only enhances students' technical and communication skills but also fosters creativity and critical thinking. It aligns with the development of 21<sup>st</sup>-century skills by promoting digital literacy, collaboration, and effective communication.

Participant 2 explains an instructional technique where students share new information at the start of each lesson to foster collaboration. She noted that:

I want my students to announce a new thing every week it maybe a concert, it may be a theater or other things. So if they see new info on the internet especially or somewhere else I want them to share this information in the classroom at the beginning of the lesson. In this way they share some info with each other out of the classroom, actually it takes just 10 minutes but it supports them in terms of collaboration because in this way they get familiar with each other.

Her practice not only promotes active engagement and the sharing of current events but also fosters a sense of community and collaboration among students. By dedicating a short, consistent time for these announcements, she encourages students to interact and communicate outside the classroom, enhancing their interpersonal skills and making the

classroom environment more dynamic and connected. She supports the development of 21<sup>st</sup>-century skills such as communication, collaboration, and information literacy in this way.

Participant 3 has another application which is also a topic in her research study. She highlighted her research focus on collaborative writing and how they incorporated it into their teaching approach. She explained that:

Actually, my masters was about collaborative writing in my studies so I designed a program on how to say a lesson plan related to them. I had 10 lessons and I arranged five of them as individual writing activities and the others as group work activities so I compared my students' responses and their writing skills improvement. So I use that to check whether my students learn or understand the concept related to Collaborative Learning or not and its effect on their writing.

By dividing the curriculum into individual and group writing activities, she aimed to analyze the effectiveness of collaborative learning on students' writing skills. This structured approach allows for both assessment of student progress and evaluation of the impact of collaborative methods on learning outcomes. It's a practical application of research findings within the classroom setting, providing valuable insights into teaching methods and their effects on student learning.

Participant 5 acknowledges the importance of 21<sup>st</sup>-century skills in education and describes a teaching approach that promotes collaboration through various activities. She remarked that:

Of course most of the time the activities are not as I told before they're not directly about these 21<sup>st</sup> century skills but we always want them to work together and we always give them projects or they design something or they design a presentation together. And they use technology and these kind of collaboration skills and also they use technology and all kinds of activities and tasks are related with these kinds of skills I guess.

She highlights the significance of 21<sup>st</sup>-century skills in education and outlines a teaching method that indirectly fosters these skills through diverse activities. While not explicitly labeled as such, tasks like projects and presentations inherently foster collaboration, critical thinking, and digital literacy. The incorporation of technology enhances students' engagement and prepares them for modern workplaces where technology is pervasive. It demonstrates a holistic approach to skill development, where students learn and apply these competencies across different contexts.

Another example for collaboration comes from Participant 8. She highlights the importance of teamwork as an example of a 21<sup>st</sup>-century skill, and said that "The most concrete example might be teamwork here; it is a cliché but true example. I think it's again about the group I am teaching. We mostly cover those points in speaking." Although it's a well-known example, it remains relevant. She underlines the adaptability of teaching methods to suit the needs and dynamics of different student groups.

Participant 9 focuses on the use of problem-solving activities as a method to promote teamwork and collaboration among students by saying that "Other than that we have problem solving exercises or activities where they have to work together in groups so that is gonna be teamwork and collaboration." Such exercises encourage students to work together, share ideas, and find solutions collectively. By integrating these activities into the curriculum, she provides students with opportunities to develop essential 21<sup>st</sup>-century skills in a practical context. It demonstrates an effective teaching strategy that not only fosters teamwork but also enhances critical thinking and communication abilities.

Participant 10 has preference for collaborative activities over individual work, she explains her activities in classroom with the following words:

Or sometimes I don't prefer individual work but they have pair work or group work of activities which require them to be collaborative should learn how to cooperate with their friends and they sometimes have speaking tasks like this sometimes writing tasks they come together to write so they should search for information together make a

research about a topic for example then they should be able to write for example coming together.

By engaging in pair or group tasks, students learn to cooperate, share ideas, and work collectively, which are crucial skills for the modern workforce. The use of speaking and writing tasks encourages students to communicate effectively and reinforces their ability to work together towards a common goal. Her teaching approach aligns well with the development of 21<sup>st</sup>-century skills such as teamwork, communication, and problem-solving. She emphasizes active learning and student engagement through collaborative projects.

Similar to the previous one, Participant 11 illustrates a method used by him to promote collaboration among students through writing tasks. He exemplifies it in his following words:

For example collaboration, I asked them most of the time after reading listening sometimes speaking if I have extra time instead of covering extra grammar extra vocabulary extra reading, I ask them to write collaboratively. like I group them and then they write together thanks to that one they can also learn from each other. They can see each other's mistakes and they can comment on each other and this is an example of my way of improving collaboration.

By assigning collaborative writing activities, students have the opportunity to learn from their peers, identify errors, and provide constructive feedback. He not only reinforces collaboration but also strengthens writing skills and encourages peer learning. It demonstrates a student-centered teaching approach where active participation and interaction are prioritized, contributing to a more dynamic and engaging classroom environment.

Participant 13 focuses on collaboration and acknowledges the challenge students face in collaborating effectively, particularly in an era where individual learning via technology is prevalent. She uttered that:

I can do something about being collaborative because they may not know how to share this how to work together maybe until because if you are studying alone via technology

you are alone, no need to anyone to study with you or they are some applications for example it makes you creative I can but they don't know how to be collaborative so I can help them to work together to work in group to think together so I can do this with different activities.

She recognizes the importance of fostering collaboration skills and proposes to help students develop these skills through various activities. This highlights her proactive approach to addressing students' needs and promoting collaboration as an essential aspect of learning. Introducing collaborative activities can enhance students' teamwork abilities, communication skills, and overall learning experience.

Participant 14 outlines her approach to promoting collaboration in the classroom through various activities. She noted that:

For collaborative ones I generally use group work activities and pair works but I do not want students to just stick with one group and continue with it. I like them to interview with each other and just move around the class and we'll just do some exercises that they can communicate only with their friends like information gap activities and kind of so yes I think I use collaboration quite a lot.

By encouraging students to interact with different classmates, the instructor facilitates diverse collaborative experiences. Activities like information gap exercises not only encourage collaboration but also enhance communication and problem-solving skills. She fosters a dynamic learning environment where students learn to work effectively with a variety of peers, preparing them for teamwork in real-world scenarios.

Participant 15 emphasizes the importance of considering student needs and integrating collaboration into various class activities. He stated that:

In terms of collaboration when there is an activity to do in class I always design the activities considering the needs of students and by asking them when we are

conducting an activity it is not only say reading it is not only a reading activity I but I tried to collaborate reading activity with some other speaking activities as well.

By incorporating collaborative elements into different types of tasks, such as speaking activities alongside reading, the instructor encourages active engagement and interaction among students. This way, she promotes a more inclusive and participatory learning environment where students can develop both collaborative and language skills simultaneously.

Lastly, *Teacher's Role* came out from the analysis under the main theme *Diverse Teaching Practices*. Participant 5 comments on her role and says that:

We go to classroom and then we face the students let's say they're they're full about these kids they come to class with these skills but if you are not a teacher if you are motivated teacher you need to be motivating the students all the time and then yeah you need to be interesting to make the students more motivated and that's all I guess.

She emphasizes the role of the teacher in maintaining student motivation and engagement. While students may have some existing skills, it's the teacher's responsibility to keep them motivated and interested in learning. This underscores the importance of creating dynamic and engaging lessons that cater to students' interests and learning styles. Teachers who are enthusiastic and dedicated contribute significantly to students' learning experiences and overall success in the classroom.

Similarly, Participant 6 focuses on the role of the teacher in 21<sup>st</sup> century class by describing her approach to teaching, which involves guiding students to access information independently. She mentioned that:

I try to give them advice, I try to mentor them, I try to show them the websites they can use I show them the options: how they can reach information. That's what I do. I'm like a mentor and I encourage autonomous learning.

By acting as a mentor, she empowers students to take control of their learning process. This approach fosters autonomy and self-reliance, important qualities for lifelong learning.

Encouraging students to explore different resources and teaching them how to access information effectively are valuable skills that extend beyond the classroom. She acquires a student-centered approach to education where the instructor facilitates learning rather than just delivering content.

The Participant 7 call attention to the importance of providing guidance and support to students in developing 21<sup>st</sup>-century skills by adding that:

However, when it comes to 21<sup>st</sup> century skills, they lack this ability and they need to a lot of assistance, they need a lot of guidance so I think at the end of the day they will be able to use a cellphone ok in however way they do it but other skills, it is something which needs a lot of guidance from a teacher or from the facilitator and without it you know your studies will have no sense in my opinion.

He underscores the critical role of teachers in equipping students with the essential 21<sup>st</sup>-century skills through guidance and support. While some skills like using technology may come naturally to them, others require structured guidance and instruction. The role of the teacher or facilitator is crucial in helping students navigate and develop these skills effectively. He underscores the necessity of educators in guiding students towards acquiring essential competencies needed for success in the modern world. This emphasizes the importance of a supportive learning environment where students receive the necessary guidance to thrive.

By underscores the pivotal role of teachers' role as facilitators in language learning, Participant 15 voiced that:

So the more we try to, I mean as facilitators, if you try to show the link between the language learning and the skills which they are already aware of, I think it will be good for their development of language learning.

By actively showing students how English learning is connected to their existing skills, teachers can significantly impact their students' language development. Teachers serve as guides who bridge the gap between what students already know and what they need to learn, making the

learning process more meaningful and relevant. Teachers play a crucial role in helping students recognize the value of language skills in various contexts, whether it's communication, problem-solving, or critical thinking. By making these connections explicit, teachers not only enhance students' language proficiency but also promote their overall skill development.

Last but not the least, Participant 16 points out her perspective on the role of teachers in facilitating 21<sup>st</sup>-century skills within language teaching contexts. She remarked that:

They are knowledgeable about 21<sup>st</sup> century skills. It will have a supplementary role in language teaching but I do not deliberately teach. Maybe I facilitate, like I create the environments in which it's suitable to learn and practice 21<sup>st</sup> century skills but I do not do anything deliberately to develop them.

In the 21<sup>st</sup> century, teachers not only impart language knowledge but also play a crucial role in nurturing broader skill sets that are essential for success in today's world. While she acknowledges the importance of 21<sup>st</sup>-century skills, she describes her approach as more indirect. Instead of explicitly teaching these skills, she focuses on creating environments conducive to their development. This approach aligns with the concept of student-centered learning, where teachers act as facilitators guiding students to develop skills through active participation and engagement by creating supportive learning environments.

### ***Creative Assessment Methods***

The fourth and the last theme that emerged from the data was *Creative Assessment Methods*. This theme reflects the need for educators to adopt innovative approaches to assessment that align with modern teaching practices. The subtopics listed provide valuable insights into different aspects of assessment, including *Alternative Assessment*, *Technology Integration*, and *Assessment Challenges*, which can be seen from the table below describing its codes and frequency numbers. This underscores the importance of assessing 21<sup>st</sup>-century skills effectively to ensure students' holistic development.



**Table 14***EFL Instructors' Creative Assessment Methods*

Themes		Categories	Codes	Frequency (f)
Creative Methods	Assessment	Alternative assessment	Portfolio	7
			Formative assessment	2
			Informal assessment	2
			Use of rubrics	2
			Project work	1
		Technology integration	Use of technology for assessment	4
			Online exams	1
			Assessment challenges	Being subjective
		Crowded classes		2
		Role of anxiety		2
Time consuming	2			

To begin with the *Alternative Assessment*, which is non-traditional approaches to evaluating student learning that differ from traditional tests or quizzes, Participant 1 talked about it in the form of informal assessment:

I think with regard to the assessment procedure for example here in our institution it is not an assessing 21<sup>st</sup> century skill I think it is not a part of formal assessment but maybe it is a part of informal assessment process. I think generally in my class I am assessing it informally. For example, in writing courses while assessing my students' essays I can see at the end of the term to what extent I have managed to improve my students' critical thinking skills based on their success level.

She discusses the assessment of 21<sup>st</sup>-century skills within the context of formal and informal assessments. While formal assessments may not always directly address these skills, informal assessments, such as evaluating student work over time, can provide valuable insights into students' development. This highlights the importance of adopting alternative assessment methods to effectively evaluate 21<sup>st</sup>-century skills, ensuring that educators can track and support students' progress in these essential areas.

Similarly, participant 2 emphasizes the role of alternative assessment for 21<sup>st</sup> century skills assessment by exploiting peer evaluation and the use of rubrics. She said noted that:

Actually, we should use all the assessment tools. We should include peer assessment. We should depend on that maybe rubric and we should inform the students before assessing them they should know how to be evaluated before doing something so in this way they can pay more attention to do it in a neat way.

She underscores the importance of using diverse assessment tools and strategies, including peer assessment and rubrics, to evaluate student learning effectively. Providing students with clear evaluation criteria in advance helps them understand expectations and encourages them to engage more actively in their learning process. This approach aligns with the principles of alternative assessment, focusing on holistic evaluation and promoting student-centered learning.

Participant 3 discusses the use of alternative assessment methods, such as speaking portfolios, to evaluate speaking skills in their classes. She uttered that:

Actually, we need to follow a curriculum and some assessment procedure in our institution but in my lessons for the speaking skills, grading the speaking skills I use speaking portfolios and I believe that it is directly related with that one. so using a portfolio can be an effective way to assess these skills. Because they help us to observe our students in a broad perspective and we can't see their improvements and needs by checking them in a regular time of settings.

She explores employing alternative evaluation techniques, like speaking portfolios, to assess students' speaking abilities in her courses. Portfolios provide a holistic view of students' abilities and allow for continuous assessment, enabling educators to monitor students' progress and identify areas for improvement effectively. This aligns with the principles of 21<sup>st</sup>-century skills development by promoting authentic assessment and personalized learning experiences for students. She also supports her view with the following words "Formative speaking is better because the other type can make our students feel stressed because they are generally paper and pen exams but the formative one takes place in a more natural environment. She stresses the advantages of using formative speaking assessments over traditional written exams. Formative assessments provide a more relaxed and natural environment for students to demonstrate their speaking skills, reducing stress and promoting authentic communication. This aligns with 21<sup>st</sup>-century skills development by emphasizing real-world application and fostering a supportive learning environment.

Participant 5 advocates for the adoption of alternative assessment techniques to effectively evaluate students' 21<sup>st</sup>-century skills. She mentioned that:

The alternative assessment techniques should be used I guess so we need to use rubrics or we can add some kind of project works to our curriculum and then students can prepare some kind of presentation or they can prepare videos and they can work together and then we can assess them but we all need a kind of rubric for all kinds of works.

Project-based assessment involves students completing projects or tasks that require them to apply their knowledge and skills in authentic contexts. Integrating project-based tasks also allows students to apply their knowledge and skills in real-world contexts, fostering collaboration and creativity. Rubrics provide clear evaluation criteria and ensure fairness and consistency in assessment. Her approach promotes student-centered learning and aligns with the principles of 21<sup>st</sup>-century education.

Participant 6 favors alternative assessment and discusses the benefits of portfolio assessment as an alternative to traditional exams, particularly for students who experience anxiety. She remarked that:

I think portfolio assessment is suitable because you know some students may have anxiety and exam anxiety and it does not reflect their own knowledge but if they're free to do things on their own path and then in their own room. Also, the portfolio assessment is very beneficial. I think when they write their portfolios and they give them to them and we see the development I'm not a very fan of exams either I'm anxious I like projects better for example.

Portfolios provide a comprehensive view of students' skills and growth, offering a more authentic and holistic assessment compared to traditional tests or quizzes. In addition, portfolio assessment allows students to showcase their knowledge and skills in a more relaxed and authentic environment, promoting deeper learning and reflection. The preference for project-based assessments reflects a student-centered approach that aligns with the principles of 21<sup>st</sup>-century education.

Similarly, Participant 7 discusses the role and the importance of portfolio in his classes by exemplifying it. While exams can assess knowledge, portfolios allow students to demonstrate these skills through their work. He said about this topic that:

As you know we have a portfolio assessment in our school so we try to assess students improvement throughout the semester by using their exam results to make a kind of evaluation. For example, I use the writing portfolios again as a means to assess and evaluate their creativity in writing and critical thinking in the same way and yeah and also speaking and writing like that can be evaluated.

Portfolio assessments provide a richer understanding of students' capabilities by showcasing their diverse skills and abilities. By incorporating alternative assessment methods like portfolios, educators can better prepare students for the complex challenges they will face in

the future. He also mentions writing samples, but portfolios can encompass various artifacts like presentations, projects, or even video recordings. This caters to different learning styles and provides a more well-rounded assessment.

Having a different perspective on the assessment procedures in her institution, Participant 8 talked about the importance of teachers role while evaluating the students, and the need for freedom and said that:

So I think of course we should have rubrics we should rely on an assessments tool but I am only talking about tasks but in terms of assessment we should give the instructor this freedom. So like portfolios even in portfolios for example in our school now they are too structured, so we just say that this is up to the teacher it is their initiative to score their students bla bla but you know I don't feel free indeed.

She talked about the importance of teachers' role while evaluating the students, and the need for freedom. This perspective underscores the importance of empowering teachers to tailor their assessment strategies to best suit their teaching styles and students' needs, aligning with the ethos of 21<sup>st</sup>-century skills development. Alternative assessment methods, like portfolios, can offer opportunities for more personalized evaluation. However, for such methods to be truly effective, teachers must feel empowered and supported in exercising their professional judgment. This highlights the ongoing need for fostering a culture of trust and autonomy within educational institutions.

Another proponent of portfolios is the Participant 9. She says portfolios are effective tools, but their full potential is realized when we invest significant time and effort into their creation and assessment and noted that

Portfolios are okay as long as we spend new valuable amounts of time. I mean if we make them write a paragraph and then immediately assess them it is not portfolio writing. No no we need to eat this needs time, this needs a whole process to follow so that would be really good and that would definitely help them a lot.

She underscores the importance of approaching alternative assessment methods, such as portfolios, with a commitment to thoroughness and patience. By investing time in the portfolio development process, students can engage more deeply with their learning, cultivate essential 21<sup>st</sup>-century skills like reflection and self-assessment, and produce work that truly reflects their capabilities and progress. This emphasizes the qualitative aspect of assessment, focusing on the journey of learning rather than just the end result.

Participant 11 highlights the importance of formative assessment in fostering 21<sup>st</sup>-century skills. He gave utterance to:

I try to encourage them to be creative using formative assessment and in formative assessment we don't make such huge decisions that's why they don't affect their overall performance or critical results let's say that's why it can be one advantage and for the other all all dimensions of 21<sup>st</sup> century skills somehow I'll probably they will learn how to collaborate how to think critically.

His strategy aligns well with the principles of formative assessment, which prioritize feedback and growth over judgment. By creating a supportive environment where students feel free to explore and innovate, educators can cultivate essential 21<sup>st</sup>-century skills. He not only encourages creativity but also fosters collaboration and critical thinking, which are crucial skills for success in the modern world. He also emphasizes the importance of nurturing a learning mindset that values progress and development over final outcomes.

Participant 12 claims that integrating 21<sup>st</sup>-century skills into our education system calls for a shift towards process evaluation. This method allows for ongoing assessment throughout the learning journey, providing opportunities for students to demonstrate their creativity, critical thinking, and problem-solving abilities. She voiced that:

We are traditionally, you know, assessing our students by taking them in the exams and trying to find out if they learned or not but if we try to use these skills in our system, using the process evaluation would be more appropriate. You know during the process

you can also give tasks to the students in which they can use their creativity and critical thinking skills to problem solving. You know you create tasks that people can work collaboratively again so you can also include you know in this process if you know do the process evaluation process assessment.

She emphasizes the need to move beyond traditional exam-based assessment methods towards more dynamic and holistic approaches. Process evaluation aligns well with the goals of fostering 21<sup>st</sup>-century skills by emphasizing continuous feedback and the development of essential competencies. By integrating collaborative and creative tasks into the assessment process, educators can better prepare students for the challenges they will encounter in their future endeavors. Embracing process evaluation not only ensures a more comprehensive assessment but also better prepares students for the complexities of the modern world.

Participant 14 also favored the use of portfolio and informal assessment. She highlights the need for alternative assessment methods to capture 21<sup>st</sup>-century skills. By incorporating portfolios and specific informal assessments, you can gain valuable insights into your students' development in these crucial areas. She expressed that:

I use 21<sup>st</sup> century skills of course in my classes but not as a way of formal assessment more like more like informal assessments and unfortunately because these are like teachers commands and kind of things. Most probably some portfolios can be quite good to do it and I can just keep track of their improvements but this can be about creativity. I may want them to create something with their friends or on their own they will keep it so I will see how they developed their way of thinking.

She acknowledges the importance of 21<sup>st</sup>-century skills while recognizing the limitations of traditional assessment methods in fully capturing these competencies. She asserts that by leveraging alternative assessments like portfolios, educators can better gauge students' progress in areas beyond mere academic knowledge. Encouraging collaborative and creative tasks provides opportunities for students to demonstrate skills such as communication, problem-solving, and critical thinking in authentic contexts. She underscores the importance

of integrating 21<sup>st</sup>-century skills into the fabric of education through innovative assessment practices.

By identifying the limitations of traditional testing and highlighting the importance of assessing 21<sup>st</sup>-century skills like creativity, Participant 16 advocates for portfolio assessments as a means to evaluate 21<sup>st</sup>-century skills. She pointed out that:

I think what we would expect from students considering 21<sup>st</sup> century skills is more suitable to reflect in portfolio tasks. When you just give a test pen and pencil paper and then what do you expect just you have let's say 30 minutes and be creative it doesn't work in this way because the individuals are different. Maybe they need a different kind of environment to be creative or express their creativity. That's why portfolio type would be more appropriate for 21<sup>st</sup> century skill.

She highlights the limitations of traditional assessment methods in evaluating 21<sup>st</sup>-century skills effectively. By recognizing the individuality of students and the need for diverse means of expression, educators can better foster creativity and innovation. Portfolio assessments provide a more holistic view of students' capabilities, allowing them to showcase their skills in ways that align with their unique strengths and preferences. This underscores the importance of embracing alternative assessment approaches to better prepare students for the demands of the modern world.

Another focus of *Creative Assessment Methods* is *Technology Integration*. In the contemporary educational landscape, the seamless integration of technology has become imperative for effectively assessing and fostering 21<sup>st</sup>-century skills among students. Technology offers a multitude of tools and platforms that facilitate innovative assessment methods tailored to the development of critical competencies such as creativity, collaboration, communication, and critical thinking. By leveraging technology in assessment practices, educators can create dynamic learning environments that empower students to thrive in the complex and rapidly evolving landscape of the 21<sup>st</sup> century. For the technology based



evaluation, Participant 4 highlights the need to move beyond basic technology use in assessment and said that:

I don't think that I am using those technological techniques for assessing their abilities. Sometimes some types of homework are assigned in that sense, for example they you know record their voice you know for extensive reading projects but they are very basic. In a much more advanced level or complex level I don't think that we use it.

He suggests a gap in leveraging technology for assessing 21<sup>st</sup>-century skills. While some basic forms of technology integration are present, there seems to be a lack of utilization of more advanced tools and techniques. By exploring and implementing innovative technologies, educators can enhance assessment practices to better capture and develop critical competencies in students. This highlights the importance of ongoing professional development and exploration of technology-rich pedagogical approaches to meet the demands of 21<sup>st</sup>-century education effectively.

Participant 6 describes a project where students used technology for creative expression within a traditional assessment format (story exams). Students used Google Classroom to submit diverse responses, including videos and songs, instead of just written work. She delivered that:

I think the projects that we give them for example we give them story exams and during the stories and some students who they all use the Google classrooms so some of them put videos, some of them recorded songs so they they use that in the classroom. it was not like a paper you know posting just in a paper you know they just send a virtually and videos that sort of thing.

She showcases a positive integration of technology into assessment practices, enabling students to demonstrate 21<sup>st</sup>-century skills in novel ways. By embracing digital platforms and multimedia tools, educators can create more interactive and authentic assessment experiences. This not only fosters creativity but also enhances student motivation and

collaboration. It underscores the potential of technology to transform assessment practices and support the development of critical competencies essential for success in the 21<sup>st</sup> century.

Participant 10 supports his idea of technology integration with an example which demonstrates how technology can be used to create more engaging and interactive presentations. Additionally, creating a product requires students to think creatively and potentially solve problems during the design process

For example, we asked our students to make some presentations in this way. We asked them to get help from some technological tools and presentation tools to use in their presentation. Or we ask them for example to create a product and then make a presentation about this so they need to be creative.

She demonstrates effective technology integration and assessment of 21<sup>st</sup>-century skills. By engaging students in hands-on projects that require the use of technological tools and encourage creative thinking, educators can effectively assess and develop critical competencies such as communication, collaboration, and problem-solving. This aligns with the demands of the modern world, where proficiency in technology and the ability to innovate are essential for success

Participant 14 highlights a willingness to explore technology integration in assessment and acknowledges a lack of experience using technology for assessment but proposes two potential methods:

For technology use I have no idea how to use it for assessment but perhaps I can just give some homework there so I can just choose a tool and create a lesson there or an exercise there and students just attend and complete it with the technological tools that they can find inside of that I mean task so that can be the third one in addition to that I can just basically observe them but observation can be a bit subjective you know and I cannot think of any other thing

While she may feel unsure about their proficiency in using technology, she is open to incorporating it into homework assignments and assessments. Observation can provide valuable insights into students' interactions with technology, although it may be subjective. This highlights the importance of ongoing professional development to enhance educators' confidence and proficiency in utilizing technology for assessing 21<sup>st</sup>-century skills.

Participant 15 offers a progressive approach to technology integration in the assessment of 21<sup>st</sup> century skills.

What I'm thinking is 21<sup>st</sup> century skill system is concerned we should not do pen and paper test but it should be more a computerized test in which the students can integrate different skills and even it could be some creative tasks right I mean they can design that they can shoot a video they can there could be a kind of portfolio work and in the light within the lights of that portfolio work we can test their productivity more.

He highlights the need for modernizing assessment practices to better align with the demands of the 21<sup>st</sup> century. By embracing computerized tests and creative tasks, he says educators can assess a broader range of skills and provide students with opportunities to demonstrate their capabilities in innovative ways. This fosters a more authentic and holistic assessment process, reflecting the complex and dynamic nature of learning in today's digital age.

The last sub-category of the theme of assessment is the *Assessment Challenges*. Assessing 21<sup>st</sup>-century skills presents educators with a myriad of challenges. While traditional pen-and-paper tests excel at measuring rote memorization and content knowledge, they often fall short in evaluating crucial skills like critical thinking, collaboration, and creativity. Assessing 21<sup>st</sup>-century skills poses challenges due to their multifaceted nature, requiring educators to design authentic assessments that go beyond standardized tests and incorporate real-world tasks. Additionally, integrating technology and providing ongoing professional development are essential for effective assessment practices in preparing students for success in the modern world.

Participant 1 states that unlike objective testing methods for content knowledge, evaluating skills like critical thinking and collaboration relies on subjective judgment, making it a challenge for teachers, as can be seen from the following words of her:

It is difficult because it can be regarded as a part of subjective testing I think subjective assessment not objective testing so of course this is a problem or a challenging issue for a teacher. It is not easy to test students' level of critical thinking, collaborative learning ability or creativity. Yeah this is a kind of subjective testing so it is a kind of challenge for a teacher.

She highlights the inherent difficulties in assessing 21<sup>st</sup>-century skills, particularly due to the subjective nature of the evaluation process. While traditional assessment methods may not fully capture these skills, educators must explore alternative approaches that allow for more authentic and nuanced evaluation.

Participant 2 continues with the difficulties by stating that “To assess some kinds of skills like those ones cannot be objective. So we should benefit from different things. It's maybe a little bit time consuming , and a little bit confusing until we get used to doing this.” She acknowledges the unconventional nature of assessing 21<sup>st</sup>-century skills and the challenges it poses due to its inherent subjectivity. While alternative assessment methods may require more time and effort initially, they offer a more holistic understanding of students' capabilities beyond traditional measures.

Highlighting a practical challenge faced by many educators, Participant 3 expresses her opinion with the following words:

I think the student's number is the difficult part of that. If I just have ten or 14 students in my classroom it is easy to observe their improvement but when the number is increasing how can I say the observation ability of the teacher decreases I think.

She highlights the practical challenges educators face in assessing 21<sup>st</sup>-century skills, particularly in larger classroom settings. As class sizes increase, individualized attention and

observation become more challenging, potentially impacting the accuracy and depth of assessment. Educators must explore strategies and tools that facilitate meaningful assessment while managing larger groups of students effectively.

Participant 5 mentions the pivotal role of rubrics in assessing 21<sup>st</sup> century skills but continues her words with the difficulties by identifying a challenge with using assessment tools like rubrics for 21<sup>st</sup>-century skills, specifically fairness and consistency:

First, I can't say that using these kinds of assessment tools is not easy, so teachers should be aware of the difficulties of these kinds of rubrics. For example, in writing, we need some kind of training because you're giving 10 to a student's writing and then the other one gives 3. So we need a kind of training to be fair. I mean it's all the same for the project design too.

She underscores the necessity for educators to recognize the intricacies involved in utilizing assessment tools for 21<sup>st</sup>-century skills. Consistency and fairness in evaluation are paramount, necessitating adequate training and alignment among teachers.

Participant 6 identifies two main challenges with alternative assessment methods for 21<sup>st</sup>-century skills:

I think the biggest one is they can cheat. We would not know how much help they get. so I think the biggest disadvantage of alternative assessment. We can never know how much the student can put on the table because the students are not very wordy. Some people are very wordy you know they know very little but they can write long long things. It may be the opposite; they may be very knowledgeable with them but do not know how to put them together. So it's always a risk we can never know we should scan their brain.

The concern about cheating or excessive assistance in alternative assessment methods is valid and underscores the importance of ensuring the integrity of assessment processes. Educators must design assessments that minimize opportunities for dishonesty while still

providing students with authentic opportunities to demonstrate their skills and knowledge. Additionally, she highlights the need to consider multiple measures of assessment to gain a comprehensive understanding of students' abilities beyond surface-level responses.

Participant 7 highlights the practical challenges associated with assessing 21<sup>st</sup>-century skills, particularly through methods such as interviews and essay evaluations:

However the main drawback of this would be time consuming and might be a little bit you know labor intensive for the teacher to evaluate because interviews are a little bit difficult and a little bit more subjective to be evaluated and the same goes and you know it applies for the writing as well, assessing students' essays. yeah they might be time consuming and they might be you know labor intensive teachers instructor to evaluate and there's a little wider margin for you know subjectiveness here. I mean they cannot be as objective as multiple or for example gap filling tests.

He underscores the real-world difficulties linked to evaluating 21<sup>st</sup>-century competencies, especially when employing techniques like interviews and essay assessments. While these approaches offer valuable insights into students' abilities, they require significant time and effort from teachers, and subjective evaluation can introduce complexities. Educators must balance the benefits of authentic assessment with the need for efficiency and reliability in evaluation. Exploring strategies to streamline assessment processes and provide clear evaluation criteria can help mitigate some of these challenges, ensuring fair and accurate assessments of 21<sup>st</sup>-century skills.

Participant 8 identifies a challenge in assessing 21<sup>st</sup>-century skills within large class sizes across multiple instructors. She expressed concern about potential unfairness due to a lack of consistency with the following words:

We are teaching a very crowded group of students. So there are many classes which means that there are many instructors teaching the same thing so with such big groups large groups I think one difficult to might be being unfair so you know if I decide to be

creative and free in my class but the other instructor may be too strict with scoring then there may be some injustice, unjust scoring examples between classes this might be think the difficulty.

She highlights a common challenge in education: ensuring consistency and fairness in assessment across multiple classes or instructors. In a large educational system with diverse teaching styles and grading practices, maintaining equitable assessment standards can be difficult. Collaboration among instructors, clear communication of expectations, and alignment of assessment criteria can help mitigate these challenges, ensuring that all students are evaluated fairly and consistently regardless of their instructor.

Participant 12 highlights some challenges with assessing 21<sup>st</sup>-century skills. She said that "It is a long process and maybe it's a little bit subjective in some parts and so finding the true measures of you know assessments might be another problem." She reflects the complexities inherent in assessing 21<sup>st</sup>-century skills, which often require nuanced evaluation methods and may not have clear-cut criteria for measurement. Balancing the need for thorough assessment with the potential for subjectivity presents a challenge for educators seeking to accurately gauge students' abilities in these areas.

Having concerns about the practicality, reliability, and validity of alternative assessments for 21<sup>st</sup>-century skills, Participant 14 also worries about potential subjectivity and bias, suggesting that personal feelings towards a student might influence scoring. She voiced that:

However, for the side effects it is not practical to be honest and it is not reliable and I have some questions about validity to be honest. Besides the subjective scoring I mean if I like a student perhaps, I will just approach it in a positive attitude, but if I hate a student, let's say don't like a student then I may have some negative comments s at first and yeah so as students may think that they did nothing cuz this is a process over a time.

She underscores the importance of maintaining objectivity and fairness in the assessment process, particularly when evaluating subjective criteria such as 21<sup>st</sup>-century skills. Personal biases and attitudes can inadvertently influence assessment outcomes, highlighting the need for training and awareness among educators to minimize their impact.

Presenting a real life experience, participant 15 talked about a challenge that students might face while being evaluated, and he added that:

Yeah one thing that comes to my mind is not everybody is very capable of technology right or not everybody has the means to have the up-to-date technology that could be one drawback and there are some learners who might have a phobias against technology. yeah I remember one of my TOEFL class. I think the student registered the course and without checking what that was all about. She said hocam I'm scared when I'm talking to computer because I have a phobia against technology so that could be one drawback.

He highlights the digital divide and technological anxieties as significant challenges in assessing 21<sup>st</sup>-century skills. While technology offers numerous benefits for assessment, such as increased flexibility and accessibility, these challenges underscore the importance of ensuring equitable access to resources and providing support for learners with varying levels of technological proficiency. Educators should consider alternative assessment methods and provide accommodations to address these barriers and ensure that all students have the opportunity to demonstrate their skills effectively.

For the last participant, she expressed her concern about the subjective nature of these skills and reported that:

I think it's not easy to access creativity or collaboration. I think we cannot. How can I assess the creativity of a task? I can make some judgments based on my experience. It is so subjective I think it is not easy to assess.



She highlights the inherent difficulty in assessing 21<sup>st</sup>-century skills like creativity and collaboration, which often defy straightforward quantification. While subjective assessments based on experience can provide valuable insights, they may also introduce inconsistencies and biases. Educators must explore alternative assessment methods and criteria to effectively evaluate these skills, taking into account the multifaceted nature of creativity and collaboration.

### ***Summary of the Qualitative Results (Semi-structured Interview)***

This study investigated instructors' perceptions and practices related to 21<sup>st</sup> century skills: Two questions tried to be answered here. Third research question focused on instructors' self-perception of their knowledge about 21<sup>st</sup> century skills. Fourth research question explored how instructors implemented 21<sup>st</sup> century skills. It had two sub-questions seeking an answer to what the teaching and testing implementation of the EFL instructors are.

The qualitative analysis identified four main themes related to instructors' perceptions and practices:

- **Understanding of 21<sup>st</sup> Century Skills:** This theme explores instructors' self-reported knowledge and awareness of these skills.
- **Need for Training:** This theme indicates instructors feel they need additional support or training in effectively using these skills in their teaching.
- **Diverse Teaching Practices:** This theme suggests the study have identified various ways instructors incorporate 21<sup>st</sup> century skills into their teaching.
- **Creative Assessment Methods:** This theme suggests the study have uncovered innovative ways instructors assess students' 21<sup>st</sup> century skills.

This study investigated EFL instructors' self-perceptions of their knowledge about 21<sup>st</sup> century skills. A key theme that emerged was "Understanding of the 21<sup>st</sup> Century Skills." Here's a summary of the instructors' perspectives within this theme:

- **Future Life Preparation:** Most instructors viewed 21<sup>st</sup> century skills as crucial for students' future success in various careers. They felt these skills go beyond academic knowledge and are essential for navigating the competitive job market.
- **Technology:** Technology was seen as a core 21<sup>st</sup> century skill by most instructors. They emphasized the necessity for students to be proficient technology users to access information, collaborate, and be creative. The rapid shift to online learning during the pandemic further highlighted the importance of technology skills.
- **Need to Adapt to the Century:** Instructors acknowledged the ever-evolving nature of the world and the need to adapt their own skills. They recognized a generational gap in digital literacy and expressed a desire to learn and improve their own skillsets to keep pace with the changing demands of the 21<sup>st</sup> century classroom.
- **4Cs of 21<sup>st</sup> Century Skills:** Instructors widely acknowledged the importance of these skills for their students' success in the modern world. Many instructors viewed these skills as essential for navigating the competitive job market. They go beyond rote memorization and academic knowledge, equipping students to solve problems, think critically, collaborate effectively, and approach tasks creatively.
- **Importance of 4Cs for Teachers:** Instructors recognized the need to stay current with evolving educational methodologies and adapt their own skillsets. Some instructors acknowledged a generational gap in digital literacy and expressed a desire to learn and improve to better connect with students who are digital natives. By integrating these skills into lessons, educators can create a more engaging and effective learning experience that prepares students for the complexities of the 21<sup>st</sup> century.

Overall, the instructors in this study demonstrated a strong understanding of the importance of 21<sup>st</sup> century skills for their students and a willingness to adapt and improve their own knowledge and practices to effectively equip students for success in the modern world. In

addition, the study underscores the interconnectedness of 21<sup>st</sup> century skills for both students and teachers. By equipping themselves with these essential skills, educators can create a dynamic learning environment that effectively prepares students to thrive in the rapidly evolving world of the 21<sup>st</sup> century.

Another theme emerged was the “Need for Training”. The study emphasizes the critical need for teacher training programs to equip educators with the knowledge and skills necessary to cultivate 21<sup>st</sup>-century skills in their students. These skills, such as critical thinking, collaboration, creativity, and digital literacy, are essential for students to thrive in the rapidly evolving world. The research highlights several key points regarding teacher training:

- **Need Analysis:** Before integrating 21<sup>st</sup>-century skills into teaching, educators themselves need to understand these skills and their significance. Training programs should focus on building awareness and knowledge among teachers about these crucial skills.
- **Ongoing Learning:** Professional development for teachers should be an ongoing process. This can involve various methods such as reflective teaching practices, workshops, online training modules, and observing classes taught by experienced educators.
- **Practical Applications:** Effective teacher training goes beyond theory. It should provide educators with practical strategies and hands-on experience in utilizing technology and integrating 21<sup>st</sup>-century skills into their lesson plans and classroom activities.

By investing in training programs that address these key points, we can empower teachers to create dynamic learning environments that prepare students with the skills they need to succeed in the 21<sup>st</sup> century.

This study also explored the diverse teaching practices employed by EFL instructors to integrate 21<sup>st</sup> century skills into their classrooms. The analysis identified five key sub-categories:

- **Skills Integration into Teaching:** This involves weaving essential skills like critical thinking, creativity, and communication directly into language lessons. Instructors achieve this through various methods, including learner podcasts for speaking practice, corpus analysis for vocabulary exploration, and creative writing tasks.
- **Technology Integration:** Technology plays a prominent role in modern EFL classrooms. Instructors leverage tools like blogs, Google Classroom, and YouTube videos to enhance engagement, promote learner autonomy, and introduce students to valuable digital skills. They also encourage responsible technology use for tasks like collaborative writing and pronunciation checks.
- **Project-Based Learning:** This approach provides students with opportunities to apply their knowledge and skills through projects. These projects can be collaborative and often involve technology integration, fostering teamwork, problem-solving, and critical thinking.
- **Collaboration Activities:** Collaborative learning is a cornerstone of 21<sup>st</sup> century education. Instructors encourage teamwork through various activities, including online discussions, shared document editing, and group presentations. This fosters communication, critical thinking, and the ability to work effectively with others.
- **Teacher's Role:** The role of the EFL instructor is evolving in the 21<sup>st</sup> century classroom. Instructors are transitioning from knowledge providers to facilitators, guiding students towards independent learning and skill development. They create a supportive learning environment that encourages exploration, critical thinking, and responsible technology use.

The study highlights the diverse approaches instructors are taking to integrate 21<sup>st</sup> century skills into their EFL classrooms. By embracing technology, fostering collaboration, and promoting critical thinking, these instructors are preparing their students for success in a rapidly changing world. Additionally, EFL instructors are employing diverse practices to integrate technology, project-based learning and collaboration activities into their classrooms. These approaches promote the development of essential 21<sup>st</sup>-century skills, preparing students for the demands of the modern world. The teacher's role is also evolving, with a growing emphasis on facilitating student learning, motivation, and skill development.

This study lastly reached the theme Creative Assessment Methods. It explores the concept of Creative Assessment Methods within the context of 21<sup>st</sup>-century education. It highlights the limitations of traditional testing methods and emphasizes the need for innovative approaches to evaluate the crucial skills required for success in the modern world. There are several key takeaway :

- **Alternative Assessment:** These methods, which include portfolios, peer evaluation, rubrics, speaking portfolios, and formative assessments, provide a more comprehensive picture of student learning compared to traditional tests. They provide various benefits such as holistic evaluation, student centered learning, reduced stress, and personalized learning. Participants also emphasize the importance of process evaluation. This approach focuses on ongoing assessment throughout the learning journey, allowing students to demonstrate their development in crucial areas.
- **Technology Integration:** Participants acknowledged that effectively assessing 21<sup>st</sup>-century skills requires going beyond traditional pen-and-paper tests and embracing technology integration. A key theme is the need for more engaging and interactive assessments. Participants described using technology to create presentations, multimedia projects, and online portfolios, allowing students to demonstrate their skills in creative ways. This aligns with the demands of the 21<sup>st</sup>

century, where effective communication and the ability to utilize technology are essential.

- **Assessment Challenges:** Some educators expressed a lack of experience or confidence in using technology for assessment. Additionally, concerns were raised about ensuring fairness and preventing cheating in technology-based assessments. It also explored the inherent difficulties of assessing 21<sup>st</sup>-century skills due to their subjective nature. Skills like critical thinking and collaboration are not easily measured through traditional methods. Educators grapple with finding reliable and objective ways to evaluate these crucial competencies.

Overall, the results advocate for a shift towards a more dynamic and holistic assessment system that aligns with the goals of 21<sup>st</sup>-century education. By embracing creative assessment methods and process evaluation, educators can better prepare students for the challenges and complexities. What is highlighted is the importance of ongoing professional development for educators to enhance their skills in utilizing technology and alternative assessment methods. By addressing these challenges and embracing innovative approaches, educators can create a more dynamic and holistic assessment system that prepares students for the complexities of the 21<sup>st</sup> century.

### **Discussion of Qualitative Results (Semi-structured Interview)**

The third research question was used to investigate the perceptions of EFL teachers employed in various universities' preparatory schools on 21<sup>st</sup> century skills. The findings are described in the parts that follow.

#### ***Perceptions of the EFL Instructors' 21<sup>st</sup> Century Skills***

The first theme emerged from the data analysis is Understanding the 21<sup>st</sup> century . It has 5 sub themes, the first of which is necessary for life, which showed the necessity of the 21<sup>st</sup> century skills for future work life. This means that 21<sup>st</sup> century skills are not only necessary for school life but also for the career of learners according to the EFL instructors. This is also

in line with the literature. According to Kapkır (2024), the EFL instructors focused on the 21<sup>st</sup> century skills a life skill and the majority of the teachers described the 4Cs as life skills that are crucial for preparing the students for the future. Similar arguments were made by Tran (2021) that emphasize how important it is to foster the development of responsible and competent global citizens, particularly in the era of knowledge-based economy and increased global economic competition.

Similar views were expressed by Trilling & Fadel (2009) on the need for present education to also concentrate on preparing the students of tomorrow—that is, on equipping them with the knowledge and skills necessary to harness the power of digital technology to expand their chances. These ideas also support Ratminingsih et al.'s (2021) assertion that problem-solving and critical thinking abilities are crucial for becoming a competent worker capable of making informed judgments in the workplace.

According to Erdoğan (2019), 21<sup>st</sup> century skills are critical components of success in both the workplace and school, and as such, they must be prioritized, particularly in order to educate students for the future. She also emphasized that students will be insufficiently prepared for the difficulties and problems that face society and the workplace today if these skills are not taught to them and they graduate without knowing about them.

All in all, this study examined the viewpoints of EFL instructors on the incorporation 21<sup>st</sup> century skills for their pupils in classes. The majority of the study's participating instructors concurred that these abilities are crucial for preparing students for the future, particularly in a knowledge-based economy. It is made clear that the teachers are aware of how competitive the employment market is. For pupils to succeed, understanding English grammar and vocabulary alone might not be sufficient. The focus on genuine competition implies a knowledge of the changing nature of the workforce, where communication, teamwork, and critical thinking abilities are becoming more and more important. This is in line with the fundamentals of 21<sup>st</sup> century skills, which include problem-solving, flexibility, and technical literacy in addition to traditional academic knowledge (P21, 2019)

The second sub-theme came out of the data was technology, which was mentioned as the most important skill of today's changing world and its uses currently. For example Yılmaz (2021) pointed out that learners can get knowledge and life skills including creativity, critical thinking, technology literacy, flexibility, and adaptability by using technological tools, which can be said that an integral skills of today.

As stated by Anealka (2018) Some human occupations will eventually be replaced by modern technology, such as artificial intelligence (AI), robotics, and the Internet of Things (IoT). For this reason, it is critical that students today acquire abilities that the technology cannot replace in today's schooling, where the 21<sup>st</sup> century skills are taught. Teachers and educators must equip pupils with the 21<sup>st</sup> century skills required by the 4IR if they are to be and remain relevant in the profession. But if teachers don't know enough about teaching pupils certain talents, then students won't be able to acquire those abilities.

However, several instructors countered that when requested to think of 21<sup>st</sup>-century abilities, the advancements in technology are the very first thing that spring to mind. Meanwhile, the literature emphasizes the use of technology in teaching and learning to enhance instructors' qualifications (McKnight et al., 2016). However, technology is not seen in some of the studies as the most important skill. When asked if they can address all four C skills equally or if they prioritize any over the others, communication was found to be integrated more frequently than the other three, as it was in Marwa et al.' (2023) research. This finding pertains to the most frequently integrated skills in English classes.

All in all it is resulted that the growing significance of technology in our lives is highlighted and the argument that not being technologically literate might make it more difficult to engage with society. Individuals with low technical proficiency can nevertheless engage in society, albeit there may be obstacles for them. In general, technology plays a bigger role in social interaction; however, it is also significant to have a balanced strategy, in which technology is viewed as a tool to improve other abilities and encourage general community engagement.



Another category emerged under the theme of understanding the 21<sup>st</sup> century skill, is the need to adapt to the century. It is perceived by the EFL instructors as a necessity of this century. According to Binkley et al. (2010), being adaptable and unpredictable is necessary in the twenty-first century. The necessity to adjust to changing conditions and to make choices and take action in settings where past actions may cause unforeseen reactions that in turn impact future tactics and possibilities is a defining feature of 21<sup>st</sup>-century expectations. This is in line with the definition of P21. The majority of research on adaptability conducted in the last twenty years has been in the psychology department; however, with the establishment of the P21, adaptability—which is defined as the ability to adjust to a variety of roles, responsibilities, schedules, and contexts as well as function well in an environment of uncertainty and shifting priorities—has also gained prominence in the field of education. (P21, 2019)

According to Schulz (2008), companies in the twenty-first century seek graduates with soft skills such as adaptability, accountability, self-assurance, interpersonal and communication abilities, a teamwork, positive work perspective. This is also in line with the results of this study, as the participants, in other words EFL instructors found the adaptability as the meaning of 21<sup>st</sup> century.

Overall, the outcomes align with the notion of adapting to the 21<sup>st</sup> century. the significance of adopting a growth mindset, being aware of one's knowledge deficiencies, and constantly looking for new chances to learn and advance. is emphasized This proactive strategy guarantees that people remain relevant and adaptive in the twenty-first-century environment that is always evolving.

Fourth subtheme is 4Cs as 21<sup>st</sup> century skills, in which the critical thinking and 4Cs as a whole were found to be the results of this part. Some of the instructors believed that critical thinking is the most important skill similar to the idea of Sewell (2012) who found that educators need to be able to think critically and be open to developing and implementing novel concepts. Thereby, in order to provide effective instruction, it is imperative that educators possess critical

thinking skills and the ability to recognize the worth of knowledge. Critical thinking is also valuable for students. It is crucial to properly teach pupils critical thinking and problem solving in the classroom, according to Roekel (2017). Students who receive instruction in critical thinking also often gain deeper analytical skills, increased focus, and improved mental processes.

As in line with the current study, Zhang et al. (2020) discovered that although the instructors had a clear understanding of what critical thinking entailed, they were only partially able to apply it when attempting to convey the concept of a good critical thinker by addressing just one or two of its components. This study focused on the implementation of critical thinking in foreign language classes. Differently, a favorable and somewhat significant correlation was discovered in all dimensions between the use of 21<sup>st</sup>-century teaching competences and critical thinking abilities in a study conducted by Kuloğlu and Karabekmez (2022). The findings showed that when teachers' critical thinking abilities grew, so did their level of 21<sup>st</sup> century capabilities. Instructors who possess excellent critical thinking abilities are in a good position to help their pupils acquire similar abilities. But it's crucial to keep in mind that critical thinking is only one component of the picture. Teachers that are effective in the twenty-first century will design classrooms that support a wide range of abilities in order to get pupils ready for the intricacies of the contemporary world.

The other participants thought all of the four skills as important. According to Davila (2016), the 4Cs may transform an ordinary grammar lesson into something amazing where teachers actively facilitate learning and students develop into motivated, self-directed learners who are nonetheless able to complete tasks within the parameters of the curriculum. These skills are not only for them to be thought but they are also the ones that will determine our students' future success, are their capacity to be self-reliant, inquisitive people. Bedir (2019) noted that because ELT methodology was primarily taught as a theoretical discipline with little attention paid to a number of crucial aspects like critical and creative thinking, problem solving, ICT, etc., Turkish ELT teachers were unaware of 21<sup>st</sup> century learning and skills. However, this

is totally contradict with the results of the current study, as the instructors are aware of the skills and implement them in their classes by paying attention to 4Cs.

The last category of understanding 21<sup>st</sup> century skills is the importance for teachers, which showed that 21<sup>st</sup> century skills are not only important for language learners but also important for the EFL instructors. When it comes to actually implementing change in teaching and learning, teachers' attitudes, beliefs, competencies, and practices play a crucial role (Voogt & Roblin, 2010). All frameworks of 21<sup>st</sup> century skills mentioned in the literature review section, in more or less detail, the crucial role that instructors play in helping students use 21<sup>st</sup> century skills and the resulting need for teacher assistance. Additionally, in accordance with the European Union's guidelines (Gordon et al., 2009), instructors are required to exhibit 21<sup>st</sup> century skills in addition to helping their pupils acquire them.

In addition, most of the instructors in this current study felt that 21<sup>st</sup> century skills had to be included in language instruction in order for it to be effective or stay relevant. Comparable results on English language instructors' recognition of the value of 21<sup>st</sup> century abilities in language instruction have been seen in the literature (Bolat & Deneme-Gencoğlu, 2024; Demirkol-Orak & İnözü, 2021).

The technical expertise instructors must possess in order to operate and manage computers, photocopiers, PowerPoint presentations, projectors, and other equipment efficiently is a requirement of this age different from the past (Szucs, 2019). They should become experts in information technology, technicians, or photocopying instead of teaching blackboard face. This makes it necessary for teachers not only to acquire but also to teach 21<sup>st</sup> century skills in order to be able to act in line with their changing roles and today's needs, in other words, it shows the importance of 21<sup>st</sup> century skills for teachers. In another study by Kuloğlu and Karabekmez (2022), they found that teachers use their 21<sup>st</sup>-century teaching skills at an extent that will enable students to gain 21<sup>st</sup>-century competencies and satisfy their requirements, this again show why the 21<sup>st</sup> century skills are important for EFL instructors since

they are the because teachers are the ones who lay the paving stones in front of the students to make it easier for them to walk.

Overall, the importance of 21<sup>st</sup> century skills is ubiquitous. These abilities are essential for experienced teachers in order to maintain their professional development and keep up to date with changing teaching approaches. They help teachers create a stimulating and productive learning environment that is advantageous to both teachers and students. Additionally, instructors who acquire 21<sup>st</sup> century skills improve their professional capacities and help create a more dynamic and productive educational system. With these abilities, educators can effectively adjust to evolving educational environments, implement cutting-edge pedagogies, and provide students with engaging learning opportunities.

The need for training was the second theme investigated and it also provides a response to the third study question, which asks: "What is the EFL instructors' self-perception of their 21<sup>st</sup> century skills knowledge?" There is a growing realization that traditional educational methods are inadequate to adequately prepare pupils for the problems they will confront in the future as our society grows more complicated and interconnected. Teacher training programs are therefore vitally needed in order to give educators the information and abilities they need to successfully develop 21<sup>st</sup>-century capabilities in their pupils. The sub-themes reached are needs analysis which requires the gap detection in instructors, ongoing learning, and practical applications.

The first topic here is the need analysis. Key concerns for implementing 21<sup>st</sup> century skills include teacher professional development and sufficient support systems. All frameworks concur on this point, but there is still a lack of understanding about the precise kinds of assistance that are required and the most effective ways to deliver them. Voogt and Roblin (2010) found that in identifying the qualities that teacher preparation programs ought to possess to facilitate the learning of 21<sup>st</sup> century abilities, the improvement of teachers' pedagogical and technological expertise is given primary importance.

According to Gibson and Brooks (2013), professional development emphasizes teachers' needs and interests, places a premium on 21<sup>st</sup>-century skills, raises awareness of and facilitates the application of these skills, and helps educators expand their perspectives and deepen their comprehension of cutting-edge pedagogy. With the support of ongoing professional development, educators can also form and shape their teaching context to incorporate 21<sup>st</sup>-century skills. However, it is obvious that while there is a consensus that teacher training is a necessary subject, the first step should be a needs analysis, which should take precedence over other issues.

As a result, before they can successfully integrate 21<sup>st</sup>-century abilities into their instruction, it is emphasized how crucial it is for educators to comprehend these talents. In fact, before teachers can teach their pupils these abilities, they themselves must understand what 21<sup>st</sup>-century skills are and how to incorporate them into the curriculum. It emphasizes the necessity of professional development and raising teachers' knowledge of the value and applicability of 21<sup>st</sup>-century skills in the classroom today. Instructors can more effectively prepare students for the challenges of the modern world by possessing and understanding these abilities themselves.

What comes next for need for training is ongoing learning. The results showed that learning from others, willingness to learn and the necessity of ongoing learning are the highlights. There are also studies in the literature focusing on the ongoing learning. Professional development has emerged as a critical prerequisite for enhancing effective language teaching and learning in order to meet the demands of the twenty-first century (Hazaea, 2019). In another study, for instance, according to Ginting and Linarsih (2022), the process of developing teachers is ongoing, and educators need to be adaptable enough to welcome change and driven to pursue personal improvement. Their development should include professional knowledge, skills, and technology expertise. This outcome showed how important professional development programs are for consistently providing the support that's required.

In another study on critical thinking and professional development, by Kim et al (2019), the results were in favor of ongoing learning and showed that teaching skills like critical thinking necessitates teaching teachers in a way that is reflective of that process by means of professional development programs that involve ongoing teachers' reflection and continuous learning. Similarly, professional development was considered essential, and most participants defined it as ongoing learning to arm themselves with the most recent instructional knowledge and new teaching skills to pursue their careers more successfully, in line with the study results of Şener and Çokçalışkan (2017). Similar to these, according to Al Asmari's (2016) research findings, professional development (PD) was seen as an essential component of continuous learning and a means of enhancing reflective teaching.

Overall, it was noted how important it is for educators to pursue ongoing professional development, especially in the area of 21<sup>st</sup>-century skills, in order to stay current and prepared to serve the needs of their students. Stated differently, the demand for 21<sup>st</sup>-century skills training stems from the realization that teachers need to adapt their methods in order to continue being successful and relevant. In the quickly evolving field of education, it is essential to preserving the efficacy of instructional methods. In a world where things change constantly, maintaining high standards for education and student achievement requires a proactive approach to professional development.

The last sub-theme of need for training is practical applications. Participants favored practical applications such as workshops or expert-led training activities. In the literature workshops are also the most favorable practical application for professional development. For instance, in their investigation of EFL instructors' preferences for professional development activities, Girma et al. (2019) discovered that workshops and short-term trainings were the most popular options. Şener and Çokçalışkan (2017) also looked at EFL instructors' perspectives on professional development (PD) and the PD techniques they employed. The most popular professional development activities offered in the Turkish educational setting were webinars, courses, workshops, and seminars, according to the instructors. The

participants emphasized how participating in professional development programs increased their sense of motivation and self-assurance.

To develop and support informed eclectic in-service teachers of the twenty-first century, professional development events and training courses are necessary. By doing this, it will be possible to generate future-ready individuals and enhance teachers' practices, awareness, knowledge, and beliefs regarding the skills of the twenty-first century. According to Eker Uka and Bedir's (2023) research, educators are flexible and ready to adjust to the demands of 21<sup>st</sup>-century abilities. There's no doubt about the tight relationship between professional development activities and teachers' understanding and use of 21<sup>st</sup>-century abilities.

The results emphasizes the value of practical training over purely academic instruction when it comes to 21<sup>st</sup> century skills. Encouraging hands-on workshops provide teachers the confidence and expertise they need to successfully incorporate 21<sup>st</sup> century skills into their lessons and help students develop them. It is also emphasized how important it is for teacher preparation programs to deliver both information and practical implementation methodologies. By giving educators the skills and resources they need to include these abilities, instructors may better prepare their students for success in the contemporary world. This strategy highlights the need of continuous learning and professional growth in improving effective teaching practices.

### ***21<sup>st</sup> Century Teaching Implementations of EFL Instructors***

Being another important focus of this study, teaching implementation of EFL instructors was tried to be uncovered. The research question was as in the follows:

4. What are the 21<sup>st</sup> century skills implementations of the EFL instructors?
  - a. What are their teaching implementations?

Diverse Teaching Practices emerged as the third theme from the qualitative data, addressing the first sub-question of the fourth research question stated above. Upon delving

into the subject of Diverse Teaching Practices, five sub-categories were identified throughout the analytical process. These sub-categories include Skills Integration into Teaching, Technology Integration, Project-based Learning, Collaborative Activities, and the Role of Teachers. These categories will be discussed below one by one referring to the literature.

To be effective leaders, individuals, and citizens, learners and teachers must possess 21<sup>st</sup>-century learning and innovation skills, communication, collaboration, creativity, critical thinking (the 4Cs), digital literacy skills, and life and career skills. As such, the curriculum and syllabus of preparatory schools need to be revised to include these skills. Skills integration plays a crucial role here in foreign language classes. The focus of teaching English in the twenty-first century must change from that of previous eras, when the primary goals of the subject were word memory, grammar, and language proficiency. Instead, modern methods that incorporate 21<sup>st</sup> century skills should be adopted (Pardede, 2020). At this point skills integration into teaching gains more value. In the literature, the place of 21<sup>st</sup> century skills integration into teaching has covered an important place. For instance, the findings of Otlu (2020) shows that a majority of the study's instructors make an effort to practice, enhance, and evaluate their students' 21<sup>st</sup> century abilities, using technology as a learning tool more frequently than the other skills. Another research examined the integration of the 4Cs into writing lessons and found that students could generate written works that were more robust and thorough when they used creative thinking phases. This component of teaching is also explored and reinforced in Zaker's (2016) research, which suggested writing exercises that integrate creative thinking.

In a study conducted by Monib (2023), the researcher examined how teachers and students felt about the integration of modern skills in language classrooms at three different colleges the results demonstrated that all of the skills were included into the lessons, albeit at different rates—from a few times each semester to one or three times per month, which is also a support from the literature for the skills integration into foreign language classes. Similar to Ratama et al.'s (2019) findings, the majority of instructors found that they could include all four



C skills into their courses. Finally, it was discovered in another study by Eker Uka and Bedir (2023) that even if EFL instructors are aware of the skills and the need for integrating them into language teaching classes, they still need to help from stakeholders in order to expand both their horizons and their comprehension of when and how to apply these skills.

Apart from this, technology integration found an enormous place for itself in the results and became a sub-theme in this study. Interviews with EFL instructors revealed that the use of technology has an essential role to improve students' other skills.

Using online resources and integrating technology was a well-liked result on 4C skill-addressing strategies that work, which is also supported by Ekizer & Yıldırım (2023). They found that there is more evidence that these skills may be developed in engaging, dynamic educational environments that make use of technology. In another study showing the technology integration and its importance in foreign language classes is by Lamri et. al (2021), which showed that technology integration has also made it possible for students to have individualized learning experiences, giving them control over the pace, place, and time of their education. Similarly, the results of Nurhidayat et al.'s (2024) study demonstrate that the improvement of 21<sup>st</sup>-century learning is strongly influenced by teacher competency and technological integration. In a specific study, which is about specifically use of Padlet as a web 2.0 tool and its effect on 21<sup>st</sup> century skills, by Mahmud et al. (2023), has also similar results in terms of technology integration, the results showed that learners' communication and collaboration skills are significantly and favorably impacted by using Padlet, and that they also positively perceive the usage of this technology in a collaborative learning environment.

Another study showed the benefits of technology integration on critical thinking as a 21<sup>st</sup> century skills. Rungsawang and Suphawat (2023) found out that using various technologies to carry out activities related to learning English promoted particular elements of critical thinking abilities, such as looking up more information, discussing ideas and viewpoints, evaluating data, and providing arguments to support beliefs. Yılmaz's (2021) study conducted in Turkish context, supported again the integration of technology. The study's findings

demonstrated how progressively incorporating technology into the classroom improves students' academic performance, multifaceted 21<sup>st</sup> century abilities, and critical and creative thinking.

Overall, teachers may appeal to the interests of a generation that was raised in the digital age by using websites and educational tools into their lessons to make learning more engaging and interactive. This method prepares students for future academic and professional settings while also increasing student enthusiasm and introducing them to useful digital skills. Using technology to motivate students can result in more engagement and a more dynamic learning environment, which will eventually create a more pleasant and effective learning environment.

The third sub-theme for diverse teaching practices is project-based learning. It was found in this study that participants thought 21<sup>st</sup> century skills through project based learning. As proposed by Bell (2010) one cutting-edge method of education called Project-Based Learning (PBL) imparts a wide range of skills necessary for success in the twenty-first century. This is also supported by the studies in the literature. For instance, by conducting research on how project-based learning improves students' 21<sup>st</sup>-century skills and English language proficiency, Puangpunsi (2021) demonstrated the value of project-based learning in supporting 4C learning by concluding that project-based learning successfully promoted all 4C skills. In a study by Hixton et al. (2012) on EFL instructors, proved that when compared to the matched group, the highly qualified PBL instructors delivered 21<sup>st</sup> century skills more frequently and in more detail. Similarly, the study by Talat and Chaudhry (2014) is also in line with the literature showing that the 21<sup>st</sup> century skills integrated into the PBL framework have a beneficial impact on students' creativity and competitiveness.

Overall, results of this study is parallel with the results of the studies in the literature showing the suitability of project based learning for teaching 21<sup>st</sup> century skills. For EFL instruction, project-based learning is a very attractive option. Beyond only vocabulary and grammar, it fosters an atmosphere where students acquire critical 21<sup>st</sup> century skills via

engaging, active, and relevant learning opportunities. Applying project-based learning to tasks that are well-aligned with the objectives of acquiring 21<sup>st</sup>-century skills not only improves students' technology proficiency but also encourages creativity and collaboration. PBL projects need careful organization and execution, and EFL teachers may provide their students the tools they need to thrive in a globalized society by fostering innovation, adaptability, and confidence.

In addition to project-based learning, interviewees have addressed collaboration as one of the 21<sup>st</sup> century's key competencies much too frequently, to the point that it has become a sub-theme. The results are also consistent with the studies in the literature that focuses on the role of collaboration on skill development and was seen an essential skills which fosters various areas of foreign language learning. For instance, cooperative learning techniques have been shown by Almashani et al. (2023) to enhance EFL grammatical proficiency. In Villarreal and Gil-Sarratea's study (2020), collaboration were found to be more advantageous for all intermediate secondary students, making it a practical tactic for enhancing FL writing abilities in a secondary school setting. According to McDonough (2004), collaborative activities enhance students' speaking time, foster autonomy and engagement, lower anxiety, and raise students' confidence. Another study supporting the current study's result was by Altun and Sabah (2020) who emphasize the value of collaborative learning in English classrooms, highlighting its advantages in terms of improved communication skills, support, constructive criticism, and real-world engagement. Professionals in the field of teaching English as a foreign language concur that collaborative learning environments improve the educational experiences of students and they define collaborative learning as a partnership between stakeholders, especially students who gain knowledge from their peers, advancing social and interactive skills as well as dynamic and active learning opportunities (Er & Ataç, 2014). Augustina (2022) also advocate the implementation of cooperative learning techniques in the classroom, where pupils may finish assignments by working in pairs and sharing knowledge. In this study participants reported the use of pair work and group work abundantly. Ehsan et

al. (2019) also contend that group work and pair work have proven successful in English classrooms.

Overall, as a key component of effective teaching and learning, collaborative learning has become a major feature of contemporary education (Saleh, 2019). It improves learning processes in a variety of ways and has positive effects on people's personal and professional life. The results of this research yielded insightful information on instructional strategies and how they affect students' growth. In addition to improving writing abilities, speaking and writing assignments completed in pairs or groups promoted vital 21<sup>st</sup> century abilities including cooperation, collaboration, and problem solving. This strategy, which places a strong emphasis on collaborative projects and active learning, is ideal for helping students acquire the critical abilities needed in today's workforce.

Last but not the least, the sub-theme came out of the data was Teacher's Role in Diverse Teaching Practices. As a result of the current study, it was found that there is a strong emphasis on the instructor's role in sustaining students' interest and motivation. Even if students might already possess some abilities, it is the duty of the instructor to maintain their motivation and enthusiasm for studying. Also, teachers may have a big influence on their students' language development by actively demonstrating to them how studying English relates to their current skill set. By acting as mentors and facilitators and bridging the knowledge gap between students' prior knowledge and what they still need to acquire, teachers help students learn in a more relevant and meaningful way. Instructors are essential in assisting pupils in recognizing. Literature also supports this finding as focusing the facilitator role of the teacher in teaching 21<sup>st</sup> century skills. For instance, Demirkol-Orak and İnözü's research study (2021) supports the literature by highlighting the active role that instructors play. Teachers must facilitate learning in order to be certified teachers. They assist their pupils in honing their skills, which are demonstrated in learning activities (Ratama et al., 2021). In addition in various studies, it was demonstrated 21<sup>st</sup> century skills shape teachers as facilitators, and those skills are student-centered skills (Dede, 2010; Lam, 2015).

In the previous century, people were expected to use the fundamental abilities of reading, writing, and math—collectively, the "3Rs"—to improve the country's economic prosperity. In this sense, the curriculum was based on providing students with processed facts and arithmetic computations, and instructors' job was to spread the information (Dede, 2010; Voogt & Roblin, 2010). However, in the twenty-first century, the role of the teacher has changed significantly, in contrast to earlier times when teacher-led instruction was common. They must now support 21<sup>st</sup> century abilities, encourage learners to explore various applications of their learned competencies and knowledge, assist learning, act as mentors, and contribute to course material (Scott, 2015).

All in all, teachers in the twenty-first century are vital in developing wider skill sets that are necessary for success in the modern world, in addition to teaching language expertise. Creating conditions that support the development of 21<sup>st</sup> century skills is more important than explicitly teaching them. This fits with the idea of student-centered learning, in which educators play the role of facilitators, helping students to acquire new abilities via involvement and active participation in the creation of encouraging learning environments.

### ***21<sup>st</sup> Century Testing Implementations of EFL Instructors***

Another focus of this study related to the 21<sup>st</sup> century skills is the assessment of them. The second sub-question of the fourth question seek to find an answer to the following:

1.b. What are the testing implementations of EFL instructors' 21<sup>st</sup> century skills?

When the results considered the theme emerged to answered this question was Creative Assessment Methods, which had three sub-themes, namely, alternative assessment, technology integration into assessment and assessment challenges. Each of them will be dealt with one by one considering the related studies in the literature.

For the alternative assessment, it was found a suitable method of assessment to test 21<sup>st</sup> century skills. More prosperous performance-based as well as curriculum-based evaluations could be used in place of standardized, whenever required end-of-year

examinations that are readily assessed and quantifiable for accountability reasons in order to better promote the development and evaluation of 21<sup>st</sup> century capabilities (Pellegrino & Hilton, 2012). Comprehensive tests should be the sole component of any system designed to aid in students' learning (Asri, 2019). Alternative assessment methods are more suitable for the assessment of 21<sup>st</sup> century skills. Not only are 21<sup>st</sup> century skills complicated in nature, but they are also difficult to evaluate. Innovative evaluation techniques are needed to evaluate these talents in light of their particular applications (Scoular et al., 2020).

Techniques like portfolio assessment, authentic assessment, self-assessment, peer assessment, and group assessment, along with a scoring rubric, should be employed to evaluate the degree to which the curriculum's learning objectives have been met (Kutlu et al. 2017). This is in line with the results of this current study showing that portfolio, formative assessment, use of rubrics and project work as alternative assessment tools which are suitable for 21<sup>st</sup> century skill assessment. The current techniques of assessment, such true-false, multiple choice, matching exercises, and gap-filling questions, are often based on conventional methods that emphasize fundamental knowledge and abilities. However, they do not give teachers and students enough information. As a result, as compared with assessment and evaluation instruments centered around conventional assessment methods, those based on alternative or current approaches ought to be employed more frequently. (Erdem & Kozaner, 2023).

According to research, shifting the focus of assessment practices from written exams to performance tasks has been essential in helping students develop their critical thinking and problem-solving abilities as they are evaluated on how well they apply their knowledge in practical settings (Darling-Hammond et al., 2010).

When the technology integration is considered into 21<sup>st</sup> century skills assessment, it was found that online exams or using technology for assessment were found to be important. Similarly Asri (2019) stated that large-scale evaluations of 21<sup>st</sup>-century abilities may be developed, administered, and scored with the use of computer-based technologies. Similarly,

the possible application of ICT and technology to facilitate the assessment of 21<sup>st</sup> century skills was highlighted by both the P21 and the ATC21S frameworks. This is especially true for complex abilities (such collaborative problem-solving or technology literacy) that are challenging to quantify by conventional examinations. Assessment delivery may be more efficient since ICT allows for faster outcomes, lower scoring costs and times, and easier feedback (Aghazadeh, 2019).

Related to technology integration and a form of alternative assessment, portfolio, studies in the literature showed positive results in terms of 21<sup>st</sup> century skills, thus supporting the integration of technology in it. Barbera (2009) linked the e-portfolios of her students in a netfolio so that students could evaluate the work of their classmates. This method's chain of co-evaluators allowed for the observation of a collaborative and gradual improvement process. Garrett et al. (2009) saw a rise in student motivation and performance when they connected undergraduate students' portfolios in an online network and encouraged them to discuss and assess their work.

Apart from online test, because game-based assessment (GBA) can test a wide range of abilities, including ethical behavior, collaborative thinking, decision-making under pressure, and calculated risk-taking (Aghazadeh, 2019), it has also played a significant role in technological integration and the evaluation of 21<sup>st</sup>-century skills.

For the assessment challenges, participants said that subjectivity, class size, and time constraints are the challenges of assessing 21<sup>st</sup> century skills, in fact alternative assessment. 1) construct definition 2) generalization; 3) task and item design; 4) evaluating and scoring evidence; 5) reporting; and 6) validation are the six main interrelated assessment issues that Foster (2023) refers to as assessment challenges. Her comments on interpreting and scoring are consistent with this research, which notes that it can be costly and time-consuming to have a human scorer for such intricate and open-ended replies.

Formative assessment in a big, multicultural classroom is difficult and requires special care, according to Aghazadeh (2019). Because it takes longer for teachers to prepare exams

and use data in a big class, there is a greater likelihood of inconsistent marking and grading. Parallel with the results in this study, according to Phongsirikul (2018), teachers appeared to favor more conventional methods that allowed them to evaluate students' language proficiency objectively, since some alternative assessment tools' subjectivity made it difficult for them to distinguish between better and worse pupils. An additional instance is provided by Sale (2020) who points out that teachers face difficulties with performance-based assessments because they require more time than traditional paper-and-pencil methods and have subjective marking because they frequently require high-inference tasks that call for a great deal of professional decision-making.

Overall, the goal of education, which is still changing and developing in the twenty-first century, is to get students ready for the future. Consequently, the essential skills evaluation should be created to offer the data required to ascertain students' capacity to handle real-world circumstances. Unfortunately, this objective is not met by the current, standardized assessment procedures (Aghazadeh, 2019). When learners take ownership of their education, they must be cognizant of their personal learning as well as the process for acquiring knowledge (Acedo & Hughes, 2014). To stay up with the times and guarantee that students take ownership of their education, educators must work more to help students overcome the obstacles posed by non-traditional forms of assessment.

### **Results of Qualitative Data - Document Analysis(Alternative Assessment Tools)**

Current assessment methodologies, such true-false, multiple choice, matching, and gap-filling questions, are inappropriate for assessing knowledge and skills because they are based on outdated approaches that prioritize core competencies, and these techniques of assessment fall short in giving teachers and students enough information about learner achievement (Kutlu et al., 2017). That's why, only alternative assessment tools were included in this study to be investigated. Each of these tools was analyzed using descriptive coding, taking the 8 skills in Ravizt's (2014) 21<sup>st</sup> century skills framework as predetermined codes, and



the results are shown below. The frequency table is presented below showing which skills are favorable- critical thinking ( $f=12$ ), communication ( $f=10$ ), and technology use( $f=8$ ), - and which skills are not – global connections( $f=1$ ), local connections( $f=1$ ), and collaboration( $f=3$ ).

**Table 15**

*21<sup>st</sup> Century Skills in Assessment Tools*

Codes	Frequency ( $f$ )
Critical thinking	12
Communication	10
Technology use	8
Self-direction	7
Creativity	6
Collaboration	3
Global connections	2
Local connections	1

For the first participating university, assessment tool were analyzed using the predetermined codes which are collaboration, communication, creativity, critical thinking, self-direction skills, local connection, global connections and technology use. In addition to traditional assessment tools, alternative assessment is also included in the assessment processes of the first university whose exams are examined. The alternative assessment tasks that students are expected to complete are: student presentation, extensive reading project, video task (knowledge sharing material), story completion, speaking assignments utilizing an online video-based site, and writing portfolio.

First, student presentations were analyzed. Here, students are expected to collect the necessary information on a topic they have determined by taking the feedback of their friends and teachers in a stress-free environment, prepare a presentation and present it to the class. One of the examples used for this task is as follows: "Present about the psychology of the

color". Based on the predetermined codes, the skills used in this portfolio task were found to be technology integration, communication, self-direction, critical thinking and creativity. The reason for this can be explained as follows, students are asked to collect information throughout the process and bring it as a ppt presentation even including multimedia or graphics into their work and present it to the class, so technology integration is used here. At the same time, during and after the presentation, it was aimed for the students to communicate with their friends and teachers, in other words, to use communication skills. Students must successfully convey via their presentation the results of their study. This includes being organized, speaking clearly, and maybe using slides or props to communicate visually. In addition, students are given a great deal of freedom in selecting their own topics, gathering material, and organizing their presentations in accordance with feedback. This calls for initiative and self-directed learning. Next, students must examine the comments they have received, choose an appropriate subject, assess the data they have gathered, and arrange their presentation in a clear and understandable manner, which shows that critical thinking is employed here. Lastly, in order to interest their audience, students might include interactive activities, images, and storytelling aspects in their presentations, thus have to be creative.

Not directly assessed skills are collaboration, global connections and local connections. Collaboration is not allowed in this setting, even when the study and presentation are unique. Neither a global nor a local viewpoint on the selected issue is specifically requested in the assignment description. Overall, the emphasis of this task is on creativity, self-direction, critical thinking, communication, and technological usage.

Another formative assessment tool examined was extensive reading projects aimed at developing students' speaking skills. One of these involves choosing a book from a list of recommended books, reading it and then asking the student to put themselves in the shoes of one of the characters in the story. Later, they are expected to give a thorough description about themselves and discuss their views and feelings throughout the book by considering self-criticism if needed. After that they need to pick a work of fiction or a movie that is comparable

to the book that you read. Discuss the parallels and/or variations amongst them. Lastly, compose a song and perform it that highlights the story's characters and incidents. The leading results of this project are as follows. The first skill used is critical thinking because in the given project want student to examine the character and criticize himself, look into issues for which there do not exist definitive solutions. Another 21<sup>st</sup> century skill that was found as a result is creativity for extensive reading projects because here students are expected to generate solutions to the given project and synthesize, evaluate, integrate and express them in new and creative ways. The student needs to clearly express themselves while describing the character, their views, and feelings, thus need to exploit effective communication skills. Also, composing and performing a song requires effective communication of ideas and emotions. What's more, the task requires the student to work independently, manage their time for reading, reflection, and completing the assignments. Self-criticism during the process demonstrates self-direction. Lastly, technology integration is a code which was found in this project. When we look at the task requirement, students were expected to write and sing a song which can be in the format of a video. That makes it valuable in terms of technology integration and also creativity.

In this activity, collaboration, global, and local connection abilities are not evaluated explicitly. This specific task does not need collaboration. Taking a worldwide viewpoint into account is not necessary for this assignment. Also, making connections between the tale and the student's surroundings or community is not the main goal. All in all, five of the eight 21<sup>st</sup>-century skills examined in this study are necessary for this project. The student employs creativity, use critical thinking, communication, self-direction skills and technology. There is no direct evaluation of collaboration, global and local connections.

The other assessment tool is video task in other words, knowledge sharing materials. Here students are expected to watch a video and then by considering the video, they need to respond in pairs to the opinion questions presented to them. As video watching is the main core step in this activity, therefore, technology integration is found as a result of the analysis.

Also, collaboration plays an important role here because students need to work in pairs and that's why collaboration finds a place for itself in this assessment tool. In these pair work questions, students are expected to use critical thinking and global connections skills. For example, one of the questions asks why it is necessary to learn English and this triggers critical thinking of the students. On the other hand, a question testing global connections skills asks whether it is necessary for all people to speak the same language. Here, the answer expected from the students is to explain how much they know about international issues as well as their knowledge of foreign literature, history, geography, and culture. Also, in pairs, effective communication is essential. In order to get to a consensus, students must be able to articulate their ideas and arguments clearly, actively listen to the other partner, and maybe engage in compromise and negotiation. The skills didn't have any place here are, creativity, local connections and self-direction skills.

A free video-based platform is utilized for enjoyment as well as learning. Their teacher sends students a code and an paper every week. The paper includes a prompt that asks questions like "Is pineapple a delicious pizza topping? What do you think?" They visit the site and input the code supplied in order to reply to the question. After that, they can reply to the weekly question by recording your voice or making a little video that lasts between one and three minutes. If they'd like, they may even leave comments on other people's videos and view their reactions. They can hone their speaking abilities outside of the class which fosters self-direction skills as they take the responsibility of their own learning. Also, it was found that since this task is already based on the use of a website in itself, the ability to use technology has been found as a result. At the same time, students' creativity is enhanced as they can shoot videos and use whatever they want in these videos. Students have the chance to see and comment on their friends' posts, which requires them to use critical thinking skills to criticize and also give them chance to communicate with each other. This task does not directly measure the following skills. In this task, there is no need for thorough examination or sophisticated reasoning. For global connections, students are not asked to think about

answering the issue from a global viewpoint in this activity or for local connections, making a connection between the question and the pupils' immediate surroundings or community is not the main goal.

As for the writing portfolio, two skills of 21<sup>st</sup> century were found in it. In the writing portfolio, students are expected to write an answer to a question given in the book in accordance with the paragraph type they have learned. The writing portfolio assignment, which asks students to respond to a question based on a certain kind of paragraph, mainly employs and evaluates two 21<sup>st</sup> century skills: They use critical thinking. Students must evaluate the question, choose the appropriate paragraph form, and arrange their answer appropriately. This entails being aware of the traits and functions of various paragraph formats. Communication is also used but the format is written communication. Students must write in a clear, succinct manner, according to the selected paragraph structure, in order to convey their views. This covers appropriate sentence construction, grammar, and information arrangement.

Skills which are not utilized are as follows. Students' freedom in selecting the topic is limited, therefore this activity does not evaluate or develop their self-direction abilities. Secondly, there is usually no collaboration involved in this activity; it is an independent endeavor. Although the solution should be creative, the challenge itself emphasizes adhering to a predetermined paragraph pattern. Furthermore, while technology can be utilized for writing or research, it is not a fundamental talent that is evaluated directly. Additionally, no particular relationship to local or global subjects is necessary for this work. In general, the writing portfolio assignment highlights the use of critical thinking abilities for question analysis and paragraph structure selection. Students' written communication abilities are also evaluated. Students neither collaborate nor use their creativity, and there is no requirement to use technology. All this shows that 21<sup>st</sup> century skills have not found a prominent place in the writing portfolio.

In conclusion, when we look at the assessment tools of the first university examined, the skills included in these tools are: technology integration, communication, critical thinking, creativity, collaboration, self-direction, and global connections.

For the second school of foreign languages, again the alternative assessment tools were examined here based on the 8 predetermined codes. In that school although there are not many, a few alternative assessment tool were employed, which are student presentation and writing portfolio. Each of them are analyzed one by one here and the results are presented.

As was said above, the first alternative assessment tool utilized at that school was student presentation. For this task students are expected to do some research on a subject which is interesting to them. And then follow these steps: first they need to find a problem in their interested area, then propose a solution to it. If they invent something, they have to explain it in detail by drawing a rough sketch of it. They also have to think about any possible drawback and present it in the classroom which was followed by the comment of their instructor and peers.

The presentation instruction assessed a number of 21<sup>st</sup> century skills that were listed above as predetermined codes. The first one is communication, which was tested in their presentation as students had to provide information to their instructor and fellow students in a clear and concise manner about their study, problem, solution, and any potential downsides. The second one is critical thinking. This is tested because students had to pinpoint an issue in the field they had selected, assess it, and then suggest an alternative solution. Third one is creativity. In order to develop and explain everything they invented because the ones who choose to invent something, they had to exercise creative thinking. Lastly, using technology as a tool was found to be a skill employed in their assessment procedure. Although not mentioned directly, students may have utilized technology for research, making visualizations, or even presenting their findings, depending on the study and presentation style.

Not specifically assessed skills in this presentation assessment were collaboration because neither teamwork nor collaborating with others on the project are mentioned. In addition, since the prompt offers a defined framework for the presentation, there may be less emphasis on self-directed learning. Next, although the subject matter may have global implications, the emphasis appears to be on the student's selected topic rather than a

worldwide concern. Therefore, there is no place for global connection skills. Lastly, like global connections, local applications may not be as important presentation project places a strong emphasis on critical thinking, communication, as well as the use of technology and creativity.

Apart from the student presentation, the other assessment tool used in that school was writing portfolio. In this portfolio task, students are played a text and they are asked to create their texts based on this listening. They are encouraged to take notes. After the exam, the responsible lecturer evaluates the students' exams with error correction codes, add his/her comments to the field on the booklet, if any, and return it to the students after 1 week. Students are not allowed to add or subtract anything while revising their text, except when the instructor gives specific feedback.

The exam outlined for the writing portfolio mostly assesses the following 21<sup>st</sup> century skills. The first of all is communication, as earners must comprehend the spoken material and then apply that comprehension to a written text. Next comes critical thinking. They must evaluate the material they heard in order to decide what to write about.

Competencies not specifically assessed in this exam format are as follows: Instead of working in groups, students are working on their own, which means there is no place for collaboration. Although thoughts may be expressed creatively, understanding and faithfully portraying the listening text are the main priorities, therefore: creativity is not tested. Also self-direction skills are not tested. The prompt offers a clear task and restricted resources (no reference materials permitted during the first draft), therefore there isn't much room for self-directed learning. The listening text's specialized topic is probably the main focus, and it may not always be pertinent to a worldwide audience, so is not pertinent to global connection skills. As with global connections, the emphasis may lie less on particular local applications and more on overall comprehension from the listening. Lastly, technology utilize as a tool comes. As they were not allowed to bring anything to the classroom except the dictionary, technology use was not also utilized.

In general, this test places a strong emphasis on critical thinking abilities and effective communication in the context of comprehending and answering the listening question.

In the third university where process evaluation practices were examined, two different practices were encountered. These are in-class discussions and student presentations. Each semester there are three presentations and four discussions. For the presentation, students are expected to follow the order of planning, practicing and presenting. After deciding on the topic they will present, they are expected to do research using internet resources and then create their presentation consisting of an introduction, body and conclusion. They are also expected to be prepared for the question and answer session at the end of the presentation. Body language, motivation, clear and understandable speaking, tone of voice, self-confidence, efficient use of time are things they are required to be aware of.

The speaking presentation described assesses a number of 21<sup>st</sup> century skills. Communication is a fundamental skill which has a place for itself here since students must be able to explain their study findings to an audience in an understandable and straightforward manner. Secondly, critical thinking comes. Students must evaluate the data from their studies, pick the most important ideas, and arrange them in a logical presentation, which fosters their critical thinking skills. For the creativity, although it's not the primary goal, there may be a degree of freedom in how the presentation is organized, how images are used, or even how the content is presented. Technology use had also found a place in this presentation because students are expected to conduct research online and maybe utilize presentation software to produce their presentation slides. Lastly, since students are able to choose their own topics, carry out independent research, and design their own presenting format, it is obvious that they implement self-direction skills.

Not specifically evaluated skills in this particular presentation format are as follows: Neither teamwork nor collaborating with others on the presentation are mentioned, that's why we can say that there is no place for collaboration. Secondly global connections comes. The task does not stress the possibility that the topic of discussion is internationally



pertinent. In line with global connections, local connections are not as important as the overall subject.

Overall, this speaking presentation stresses technological usage, communication, critical thinking, and, to a lesser degree, self-direction and creativity. Additionally, it may evaluate time management, motivation, confidence, and body language in an indirect manner.

As a second alternative assessment tool, in-class discussions were utilized. In-class discussion practice is carried out 4 times in each semester. Students, who are informed about the discussion topic of the week one week in advance, are divided into two groups. The groups divided into two are directed as for/against. Students are expected to make their preparations during the given time and participate in the discussion in a prepared manner. They can benefit from materials suitable for their topics and ideas, and they can use them in the classroom. In Round 1, the topic is introduced by one student from each group. In the first round, each student from both groups is expected to speak for at least 1 minute. When the students from the first group have finished speaking, the students from the second group take turns to express their thoughts. Thus, all participants have expressed their pro and con views on the topic and the first round is completed. The second round begins to present opposing views to the views expressed in the first round. At this stage, students are expected to perform in line with the language outcomes at the relevant level and ask critical and reflective questions. In the last round, a closing speech is made by the students to summarize the topic. In addition, at the end of the discussion, students are asked to reflect, and the whole process and group/thinking performances should be evaluated verbally separately. The discussion session ends.

Based on the information provided above on the in-class discussion, the following 21<sup>st</sup> century skills are tested: Communication is the first skill. Students should take turns speaking for at least a minute, during which they should share their opinions on the subject. To do this, communication must be precise and succinct. The next critical thinking comes. By analyzing the subject, forming their own thoughts, and responding to opposing viewpoints, students are

encouraged to participate in the conversation style and use their critical thinking abilities. Last one is the collaboration. Although students aren't working together directly on a single topic, they are cooperating throughout discussions by listening to one another's viewpoints and expanding on one other's ideas.

Skills not directly tested in this specific in-class discussion format are firstly self-direction skills. As a clear framework and discussion questions set out, the requirement for self-directed learning is limited. The next one is creativity. While there may be some chance to provide original thoughts, the main emphasis is on subject analysis and peer response. Following this, utilizing technology as a tool is analyzed. There is no mention of utilizing technology in the discussion prompt. For global connections and local connections, none of them had a room for themselves in the discussion.

Overall, when students engage with each other's views, the emphasis of this in-class conversation is on communication and critical thinking abilities, along with some teamwork.

The alternative assessment tools used at the fourth and the last participating university to be analyzed in this study are as follows: writing portfolio, video tasks, and student presentations. Each of these tools was analyzed one by one according to the eight predetermined 21<sup>st</sup> century skills and the results are presented below. Among the eight skills that are analyzed here, the writing portfolio assignment mainly evaluates and makes use of the following 21<sup>st</sup> century skills: In the in-class style, students select which writing assignments they wish to be assessed on. They must use judgment and initiative in their learning as a result, this fosters their self-direction skills. The other one is critical thinking. When selecting which activities to submit for review, students should probably take into account a variety of variables, including their strengths and limitations as well as the particular comments they got on earlier versions.

Competencies that could be applied but not evaluated directly are as follows. The task does not give any place for communication in the assessment of student writing. For technology use, neither writing nor the evaluation process is conducted utilizing technological

tool that's why, it is not assessed. No mention of peer review or group authoring is made in the work description, which means collaboration is not tested. Although the work description emphasizes selecting pre-defined activities rather than necessarily coming up with completely original ideas, creativity may still be encouraged in the writing itself. No global or local topics are specified for the writing tasks in this task. In general, the writing portfolio assignment places an emphasis on students' ability to learn independently and critically, allowing them to select the parts of their work that they would want criticism on.

Another alternative assessment tool used is video tasks, in which students are expected to make videos on given topics, for example inviting a friend to a party, in pair work or group work and share them with their teachers. Following an evaluation of the video task, the following is a summary of the 21<sup>st</sup> century abilities that were applied and evaluated in the pair or group work video portfolio task. These are the utilized skills. Collaboration is a fundamental skill for this activity. Pupils must collaborate in groups or couples to organize, write, direct, shoot, and edit their movies. They will have to settle any creative disagreements, assign responsibilities, and communicate clearly. For communication it can be said that throughout the video, students must express their views in a clear and concise manner both orally and nonverbally. Their communication style will need to be modified in light of the target audience—the teacher. This task makes give place to creativity a lot. Storytelling, scriptwriting, and presentation are all made possible by the video medium. Students can approach the subject in a novel way and make use of visual elements effectively. Critical thinking is also assessed here. Although the subject matter may be predetermined, students must consider carefully the point they wish to make, the best way to organize their movie, and the most efficient way to employ the resources at their hands. For the self-direction skills, within the parameters of the work, there is some leeway for autonomous decision-making. Students may decide on the tone of the video, the way their characters are portrayed, and whether to utilize music or other effects. Lastly, in order to record and edit their movies, students will have to use technology. This involves picking up and using the fundamentals of video editing.

The video job does not directly assess the skills of local and global connections. A global viewpoint is not specifically required for this assignment as tasks are general topics like inviting a friend to party or shopping. Similarly local connections does not have a place as students don't need to use regional themes or allusions that are pertinent to their neighborhood. In general, the video portfolio activity that involves working in groups or pairs fosters a variety of 21<sup>st</sup> century abilities. Effective video making requires collaboration, communication, creativity, critical thinking, self-direction and technology integration.

The last assessment design of this university where alternative assessment methods were examined is student presentation. In these presentations students are given topics, such as talk about your home or talk about a sport that you really like, and they have to prepare a presentation about one of these topics and present it to their friends and two teachers. The task of the student presentation makes use of and evaluates a number of 21<sup>st</sup> century skills: Utilized and evaluated skills are stated here one by one. Students must deliver their selected topic to instructors and classmates in an understandable and persuasive manner. This covers both possible non-verbal communication (body language, visual assistance) and verbal communication (delivery, clarity, organization). Next critical thinking comes. Students must examine the supplied material, choose pertinent details, and organize their ideas logically and captivatingly. Also, self-direction skills were found to be used. Students are given themes, but they also have some freedom to do their own research, decide on a presenting style (factual, narrative, etc.), and choose any accompanying materials (visuals, props, etc.). Creativity is another one used. In order to captivate their audience, students might use storytelling elements, comedy, or images in their presentations. In addition technological tools use had a place there. For research and visual production, students may make use of technological tools such as presentation software or internet resources. For the local connection, it was found that students may include local allusions or anecdotes that pertain to their own upbringing, depending on the assigned topic ("talk about your home").

When we look at the skills not directly assessed, these are collaboration and global connections. This task does not foster collaboration as it is personal in its nature, and a global viewpoint is not specifically requested in the assignment description. Overall, communication, critical thinking, and self-direction abilities are emphasized in the student presenting activity. Additionally, it gives students the chance to take use of local connections, creativity, and making use of technology as a tool.

All in all, when the assessment tools utilized by universities, it was found that some skills are assess more while some others were not touched upon. The first popular skill tested is critical thinking following this comes communication. Also, technology use is exploited a lot in the assessment tools. However, the least favorable ones are global and local connections, which has almost no place in the tools analyzed. Collaboration is also one of the least common skills assessed. These results show that 21<sup>st</sup> century skills have some place in the alternative assessment tool of English preparatory classes.

### **Discussion of the 21<sup>st</sup> Century Skills in the Assessment Tools**

According to Pellegrino et al. (2004), the traditional assessments fail to adequately represent the competences and skills required by society and the workplace in the twenty-first century. Therefore, alternative assessment methods were examined in this study in terms of the use of 21<sup>st</sup> century skills. The results of the research are as follows. While critical thinking was the most frequently evaluated skill, local connections was the least frequently evaluated skill in this current study. These results are discussed below in the light of studies in the literature though there are not many. In a recent study by Irfiana et al. (2023), it was found that EFL instructors in secondary schools strongly preferred the use of technology in the classroom and other 21<sup>st</sup>-century skills like collaboration and critical thinking. Concurrently, establishing local relationships was the 21<sup>st</sup>-century skills practice assessment that was least frequently used. This study has similar results in terms of the least utilized skill. However, Otlu (2020) reached the following results: while educators attempt to develop and assess skills

related to using technology as a learning tool more than other skills and to strengthen local connections the least, it is important to note that participants attempt to develop and assess communication skills secondary. Again similarly, local connections is the least assessed skill among the 21<sup>st</sup> century skills. Despite its low popularity among assessed skills, Cheng (2004) recommended that teachers should underline the value of knowledge anchored in a cultural or regional context while teaching a certain subject emphasizing the need for local connections to have a place in learning and evaluation. In addition, Yang (2010) contends that it is crucial to develop local connections in the classroom since students become more engaged when they are familiar with the material in their local surroundings.

Additionally, different from the current study, Kapkır (2024) found that in terms of how the abilities used in the assessment procedures are distributed, the one skills that isn't examined in any exam format is collaboration. This is probably because of the construct of the collaboration skill. As stated by Child and Shaw (2016) the fundamental problem here is that, although being practically universally acknowledged as having practical applications in the classroom and beyond, the idea of collaboration is conceptually nebulous. This may be the cause of its being the least assessed skills contrary to the current study.

All things considered, the position of 21<sup>st</sup>-century skills in evaluation instruments for EFL instructors is a complex and continually evolving topic. Even though communication and critical thinking abilities are still crucial, it's becoming more widely acknowledged that evaluating these other skills is also crucial for producing well-rounded language learners. In addition, the importance of 21<sup>st</sup>-century abilities in EFL assessments is rising, but there are some issues that must be resolved. Through the creation of new resources, training for educators, and examination alignment, it will ensure that EFL assessment meets the requirements of students in the twenty-first century.

## Chapter 5

### Conclusion and Suggestions

The primary goal of this study was to find out how EFL instructors employed at various university preparatory institutions perceived, taught, and evaluated 21<sup>st</sup> century skills. Considering the results reached and the discussion, conclusions drawn and suggestion sections put forward to are as follows.

#### Conclusion

The present research study sought to explore the views and practices of the English language teachers with regard to the teaching and assessment methods of the 21<sup>st</sup> century skills in their classes in the preparatory schools of 18 public and private universities in Ankara, Turkey.

Because of the nature of the research design used in the study, quantitative data collected and analyzed, following this qualitative data were collected through semi-structured interviews and analyzed. Later, assessment documents were gathered and analyzed using deductive coding based on the eight categories of 21<sup>st</sup> century skills included in Ravizt's (2014) survey. Results of the quantitative data were used to answer the first research question about the EFL instructors' 21<sup>st</sup>-century skills regarding their gender, years of teaching experience, educational background and type of school. The conclusion is that teachers' use of 21<sup>st</sup> century abilities in the classroom does not appear to be influenced by their gender. In addition, based on their years of teaching experience, teachers' implementation of 21<sup>st</sup> century skills does not differ statistically significantly. Similarly, there is no difference in the application of 21<sup>st</sup> century abilities based on educational attainment. Lastly, the findings implied that the kind of university—private or state—has no discernible impact on the way in which teachers apply these abilities. Considering these results, teachers' perceptions of 21<sup>st</sup> century skills are not affected by gender, experience, educational background, or the type of institution they work in.

According to the results, teachers' opinions on 21<sup>st</sup> century skills are consistent across a range of professional and demographic traits. This consistency may indicate a level of agreement or universality among educators about the nature and significance of the 21<sup>st</sup> century skills in modern education. Additionally, it may be implied that educational strategies and curriculum development efforts designed for implementing 21<sup>st</sup> century skills might be standardized within various groups of teachers without considerably varying in acceptance or understanding as thoughts of the instructors are not affected according to variables like gender or experience. In summary, teachers' perceptions of 21<sup>st</sup> century skills seem to be constant despite differences in their professional environments and backgrounds.

The purpose of the second research question was to determine whether or not there is a meaningful relationship between the knowledge of EFL instructors and the application of 21<sup>st</sup> century skills in their instruction. The skills have a significant positive connection, meaning that improving one ability is connected with improving the others, according to a Pearson product-moment correlation coefficient that was computed to evaluate the relationship.

These subskills are found in correlation with each other. For example, in language learning environments where students need to assess language structures and apply them in various circumstances, critical thinking and problem-solving skills are essential. In addition, enhancing learning outcomes can be achieved by integrating those subskills into EFL instruction. Promoting student participation, for instance, might help them become more proficient in the language through interactive exercises like group projects or discussions. What is more, these subskills can be used by EFL teachers to create assessments and lesson plans that are more successful. In language activities, for example, encouraging creativity and communication skills may help create a more dynamic and interesting learning environment. In general, including 21<sup>st</sup>-century subskills into EFL instruction improves learning results and gets students ready for the difficulties of the contemporary world.

In accordance with the questions on 21<sup>st</sup> century skills perspectives of EFL instructor and their instructional practices and assessment methods, the four themes that



emerged throughout the qualitative analysis were found. Four major themes about the beliefs and practices of teachers were found through the qualitative analysis: The first theme “Understanding of 21<sup>st</sup> Century skills” delved into the knowledge and awareness of these abilities as stated by teachers. The second theme “Need for Training” suggested that teachers believe they require more guidance or instruction in order to use these abilities to their teaching in an efficient manner. The third theme “Diverse Teaching Practices” implied that the study has uncovered a number of methods in which teachers integrate 21<sup>st</sup> century abilities into their instruction. The last theme was “Creative Assessment Methods”. According to this topic, the study revealed creative techniques for teachers to evaluate their students’ readiness for the twenty-first century.

According to the findings related to the perception of the EFL instructors, the majority of educators believed that 21<sup>st</sup> century abilities were essential for students' success in a variety of future occupations. They believed that these abilities go beyond academic knowledge and are critical for surviving the cutthroat employment market. Secondly, most of the educators considered technology to be a fundamental 21<sup>st</sup> century ability. They underlined how important it is for kids to be adept digital users in order for them to access information, work together, and be creative. The pandemic's sudden change to online instruction further emphasized how crucial digital skills are. Thirdly, the world is changing all the time, and instructors saw that they needed to modify their own methods. They acknowledged the disparity in digital literacy across generations and conveyed a willingness to acquire and enhance their own competencies to stay up to date with the evolving needs of the 21<sup>st</sup>-century learning environment. The 4Cs of 21<sup>st</sup> century skills were then came out as a category. The significance of these abilities for their pupils' success in the contemporary world was generally acknowledged by educators. These abilities were seen by many educators as necessary for surviving the competitive labor market. They give students skills that go beyond academic knowledge and rote memorization, enabling them to solve issues, think critically, work well in groups, and approach assignments imaginatively. Lastly, the last category of the first theme was about the importance of the 4Cs

for teachers. Teachers expressed a desire to learn and grow in order to more effectively interact with students who are digital natives. By incorporating these skills into classes, educators can create a more effective and engaging learning environment that equips students for the complexities of the twenty-first century. Teachers also acknowledged the need to stay up to date with changing educational methodologies and adjust their own skill sets.

All things considered, the study's instructors showed a keen awareness of the value of 21<sup>st</sup> century abilities for their pupils as well as a readiness to modify and enhance their own expertise and methods in order to better prepare their pupils for success in the contemporary world. Furthermore, the study emphasizes how important 21<sup>st</sup>-century skills are for instructors and students alike. Teachers may effectively establish an engaging educational setting that effectively equips pupils to survive in the fast developing 21<sup>st</sup>-century world by arming themselves with these critical abilities.

The study also highlighted how important it is for teacher training programs to give instructors the know-how and tools they need to help students develop 21<sup>st</sup>-century abilities. The study makes many important findings about teacher preparation. Firstly, teachers themselves must comprehend the importance of 21<sup>st</sup>-century skills before incorporating them into the classroom. Training initiatives should concentrate on increasing teachers' understanding of and proficiency with these essential competencies. Secondly, teacher professional development need to be a continuous undertaking. This might entail a variety of techniques, including workshops, online training courses, reflective teaching practices, and observation of the classes delivered by veteran teachers. Lastly, good teacher preparation goes beyond the classroom. It ought to give teachers useful tips and first-hand experience using technology to incorporate 21<sup>st</sup>-century abilities into their lesson planning and instructional activities. All in all, the ability to provide teachers with the necessary skills to create engaging learning environments that equip students for success in the twenty-first century may be increased by establishing training programs that cover these important topics.

This study additionally investigated at the various methods that EFL teachers utilize to include 21<sup>st</sup> century skills into their lessons. Five crucial subcategories were found by the research. The first finding was the incorporation of skills into instruction. This entailed integrating communication, creativity, and critical thinking directly into language education. Teachers performed this by using a variety of techniques, such as exercises in creative writing, corpus analysis for vocabulary development, and learner podcasts for speaking practice. Next, in contemporary EFL courses, technology is a major component. Teachers used resources like YouTube videos, Google Classroom, and blogs to increase student autonomy, improve engagement, and teach them important digital skills. Additionally, they promoted the safe use of technology for assignments like group writing and pronunciation checks.

Project-based learning strategies were also found to be crucial for the application of 21<sup>st</sup> century skills into classroom. Through projects, it gave students the chance to put their knowledge and abilities to use. These cooperative projects, which frequently used technology, promoted cooperation, critical thinking, and problem-solving. Aside from this, the teachers stated that collaborative learning was a fundamental component of education in the twenty-first century. Through a variety of activities, such as group presentations, online conversations, and shared document editing, they promoted communication, critical thinking, and the capacity to collaborate well with others. Finally, in the classroom of the twenty-first century, the function of the EFL instructor has been changing. Teachers are changing from being information suppliers to being facilitators who help students acquire skills and learn on their own. They establish a nurturing learning atmosphere that promotes inquiry, critical thinking, and appropriate use of technology.

The research emphasizes the many methods teachers are using to incorporate 21<sup>st</sup> century skills into their EFL classes. These educators are equipping their pupils for success in a world that is changing quickly by embracing technology, encouraging teamwork, and stressing critical thinking. Furthermore, a variety of approaches are being used by EFL

teachers to include technology, project-based learning, and cooperative learning into their classes. By encouraging the development of critical 21<sup>st</sup>-century skills, these methods help students get ready for the challenges of the contemporary world. The responsibilities of the instructor is also changing, with an increasing focus on encouraging student learning and developing their skills.

The issue of creative assessment methods was the last one this study addressed. It examined the idea of Creative Assessment Methods in relation to education in the twenty-first century. It drew attention to the shortcomings of conventional testing techniques and underscored the demand for creative ways to assess the fundamental skills needed to succeed in the contemporary world. Several important lessons could be learned: In the first place, compared to traditional exams, the alternative assessment methods—which include speaking portfolios, peer evaluation, rubrics, portfolios, and formative assessments—gave a more complete view of students' development and included in the assessment processes of EFL instructors. They provided a number of advantages, including individualized learning, stress reduction, student-centered learning, and holistic assessment. Additionally, participants stressed the need of process evaluation. With this method, which emphasizes continuous evaluation throughout the learning process, students may show how much they have improved in key areas. Next, technology integration was demonstrated to be a significant finding for 21<sup>st</sup> century skill evaluation. Participants agreed that embracing technological integration and moving beyond conventional pen-and-paper exams were necessary for efficiently evaluating 21<sup>st</sup>-century abilities. The need for more dynamic and captivating examinations was a recurring subject. Participants spoke about how students may showcase their abilities in original ways by utilizing technology to develop online portfolios, multimedia projects, and presentations. This is in line with the needs of the twenty-first century, when technical proficiency and efficient communication are critical. Lastly, teachers claimed some concerns related to the assessment of 21<sup>st</sup> century skills. A few teachers stated they were inexperienced or unconfident when it came to employing technology for assessments. Concerns were also expressed over

maintaining impartiality and avoiding cheating in tests that use technology. It also looked at how hard it is to evaluate 21<sup>st</sup>-century skills because they are so subjective, classes are crowded for individualized performance assessment, and it requires a lot of time. Teachers struggle to come up with trustworthy and impartial methods of assessing these vital skills.

Overall, the findings support a change to an evaluation system that is more dynamic and comprehensive and is in line with the objectives of education for the twenty-first century. Teachers may more effectively get ready students for the difficulties and complexity by embracing innovative assessment techniques and process evaluation. The significance of continuing professional development for educators is emphasized in order to improve their proficiency with technology and alternate forms of evaluation. Through tackling these obstacles and adopting creative methods, teachers may develop a more dynamic and comprehensive evaluation framework that gets students ready for the challenges of the 21<sup>st</sup> century.

As the last aspect of the current study, the formative assessment methods used by the participating institutions to evaluate students' 21<sup>st</sup> century abilities were examined. It was discovered that some skills were tested more than others and that some skills were not addressed at all. Critical thinking is frequently assessed first, and then communication comes. The assessment tools heavily rely on the usage of technology. Global and local connections, on the other hand, are the least advantageous and barely appear in the instruments examined. Moreover, one of the least used abilities is collaboration. According to these findings, 21<sup>st</sup> century abilities can be included in the alternative evaluation method used in English language preparation programs.

The place of 21<sup>st</sup>-century abilities in EFL instructors' assessment tools is a complicated and dynamic subject. While teaching 21<sup>st</sup> century skills is still important, there is growing recognition that assessing these skills is equally important for developing language learners who are well-rounded. Furthermore, the significance of 21<sup>st</sup>-century skills in EFL evaluations is growing, although some problems still need to be fixed. By developing new materials,

providing instructors with training, and aligning exams, it will make certain that EFL assessment satisfies 21<sup>st</sup>-century student needs.

Overall, for the purpose of preparing students for future problems, educators must integrate, teach, and assess 21<sup>st</sup>-century skills in the context of EFL education. The practices, knowledge, attitudes, perceptions, and awareness of teachers about these skills are essential in fostering competent persons who may flourish in today's world. Thus, professional development workshops and teacher training programs are essential to developing knowledgeable and flexible pre-service and in-service teachers for the twenty-first century.

In addition to improving teachers' comprehension of 21<sup>st</sup>-century skills, ongoing professional development gives them the tools they need to successfully incorporate these abilities into a variety of instructional scenarios. In order to promote awareness and efficient use of these abilities in educational contexts, educators must negotiate the complexity of knowing when and how to use them based on the readiness levels of their pupils. By taking the initiative, we can make sure that educators are ready to meet the changing needs of the contemporary classroom.

Simultaneously, evaluating 21<sup>st</sup>-century skills in EFL classes is a dynamic problem. In order to develop well-rounded language learners, there is a growing understanding that although teaching these skills is still crucial, so is assessing them. The growing importance of 21<sup>st</sup>-century abilities in EFL assessments highlights the necessity for creative thinking and solutions. In order to address the issues at hand, new assessment tools that accurately evaluate these abilities must be created. Additionally, educators must get thorough training on efficient assessment techniques, as well as matching evaluation techniques to learning goals and student requirements.

Redesigning current tests and creating new instruments that precisely measure students' ability in critical thinking, communication, teamwork, and other crucial 21<sup>st</sup>-century skills are some of the steps taken to improve EFL assessments. This assures that evaluation procedures both represent and successfully support the incorporation of these abilities into

language learning contexts. Teachers may better prepare their students to negotiate the challenges of communication and collaboration by integrating assessment methodologies with educational goals and taking use of pedagogical research breakthroughs.

Additionally, it's critical to support teachers' continuing professional growth in order to create a culture of continuous improvement in assessment processes. This entails giving educators the know-how and abilities required to create tests that accurately represent the use of 21<sup>st</sup>-century abilities in practical settings. By working together, educators, legislators, and curriculum creators may overcome these obstacles and improve EFL instruction's ability to equip students for success in a connected and fast changing global community.

In summary, the findings of this study may require EFL instructors to become more conscious of the value of teaching and evaluating 21<sup>st</sup>-century skills. Additionally, educators may need to be reminded to incorporate these skills into their curricula by offering substitute methods for teaching and evaluating students. EFL instruction must successfully integrate, teach, and assess 21<sup>st</sup>-century skills if it is to provide students with the skills they need to thrive in the contemporary world. Teachers should make sure that EFL programs adequately prepare students for the possibilities and difficulties of the future by making investments in professional development, improving evaluation procedures, and coordinating instructional strategies with rising global needs. Since families form society, teachers have a significant influence on how children develop. If they are proficient in teaching 21<sup>st</sup>-century skills, their students will also pick them up and pass them along to their parents. This can have a positive ripple effect on national perspectives.

## **Suggestions**

In this section, in the light of the results obtained from the findings of the study, suggestions for teaching, testing and researching 21<sup>st</sup> century skills are presented.

In this study, it was revealed that the in-service English language teaching instructor found themselves generally sufficient in terms of having 21<sup>st</sup> century skills and that they attach

importance to the acquisition of these skills; however, they stated that they needed more detailed information about some skills. In other words, they consider themselves sufficient at the level of knowledge but insufficient in teaching them. Taking into account all components and stakeholders of in-service teacher education, it is suggested that 21<sup>st</sup> century skills are necessary for in-service teachers to adapt to the era and should be included in the scope of in-service training programs through desired and intentional learning experiences. Meetings, seminars or workshops in which experts in the field of education and from different fields are invited to improve the 21<sup>st</sup> century skills that teachers consider themselves insufficient can be arranged.

This study was conducted with English language instructors who teach English as a foreign language and work in preparatory classes of 18 public and foundation universities in Türkiye participated in the study. Similar studies can be conducted with the participation of a larger number of state and foundation universities across this country.

Due to the small sample size for the qualitative section of the study, the findings may alter when viewed in a larger context. To improve the study's validity and reliability, the researcher employed a range of data gathering techniques. thereby is recommended that another similar research study be carried out within bigger contexts involving learners in order to analyze instructors' opinions and their teaching and testing applications of the 21<sup>st</sup> century skill. In addition to these ideas, a variety of diverse data gathering techniques, such as class observations or longitudinal studies, may be utilized in future study to look into the same problem as this study was conducted solely on teachers' perceptions and their stated teaching and evaluation practices. The results obtained are the participants' perceptions of themselves. A discrepancy between teachers' views and their actions may arise from the current study's findings, which may be used to analyze the actual classroom environment, that is, while doing in-class applications, as well as methods pertaining to 21<sup>st</sup> century skills through observation and a longitudinal study, thus, a more detailed data will be obtained.



In addition, this study tried to find out how much 21<sup>st</sup> century skills are used in the assessment processes of four different universities by using alternative assessment tools. This number can be increased and more diverse and detailed results can be reached.

Similar to this, the present study was conducted with teachers from preparatory schools at the university, and all ramifications were discussed and presented within the framework of this setting. Thus, more research might be performed to examine how 21<sup>st</sup> century skills are integrated into departmental courses, particularly in departments of foreign language education and how they approach teaching and evaluation of these skills.

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## APPENDIX-A: 21<sup>st</sup> Century Teaching and Learning (Ravitz, 2014)

### A Survey for Measuring the 21<sup>st</sup> Century Teaching and Learning

Dear participant, this study aims to investigate EFL instructors' self-perception of their own 21<sup>st</sup> century skills, the role of these skills in their teaching and assessment procedures. There is no "right" or "wrong" answer. Please ensure that the information contained in this survey is confidential. Your answers will be a valuable contribution to the study.

Thank you very much for your participation.

Ayşe ALTAY  
Hacettepe University

#### I. BACKGROUND INFORMATION

a. Age:

b. Gender:

- Female
- Male

c. Educational background:

- BA
- MA  (specify your field) \_\_\_\_\_
- Phd  (specify your field) \_\_\_\_\_

d. BA program you graduated from:

- ELT
- English Literature
- Linguistics
- Translation and Interpretation
- American Culture and Literature
- Others (please specify): \_\_\_\_\_

e. Your institution:

- Private university
- Public university

f. Years of teaching experience:

- 1-5 year
- 6-10 year
- 11 -15 year
- 16-20 year
- More than 21

g. The city you are working: \_\_\_\_\_

**h. The level you are teaching:**

- A1
- A2
- B1
- B2
- C1
- Other (please specify): \_\_\_\_\_

**II. A Survey for Measuring the 21st century Teaching and Learning****Instructions**

The rest of this survey asks about your teaching practices that might support students' learning of the following the 21st century skills.

Critical Thinking

Collaboration

Communication

Creativity & Innovation

Self-Direction

Making Global Connections

Making Local Connections

Using Technology as a Tool for Learning

For each of the above you will be asked about your general teaching of these skills, and about a few specific practices you may have used.

There are no correct or incorrect answers and all responses will be kept confidential.

**CRITICAL THINKING SKILLS** refer to students being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning

**1. Here are some examples of practices that may help students learn CRITICAL THINKING SKILLS.**

	<b>Almost never</b>	<b>A few times a semester</b>	<b>1-3 times per month</b>	<b>1-3 times per week</b>	<b>Almost daily</b>
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					
a. Compare information from different sources before completing a task or assignment?	0	0	0	0	0
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	0	0	0	0	0
c. Summarize or create their own interpretation of what they have read or been taught?	0	0	0	0	0
d. Analyze competing arguments, perspectives or solutions to a problem?	0	0	0	0	0
e. Develop a persuasive argument based on supporting evidence or reasoning?	0	0	0	0	0
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	0	0	0	0	0
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>	<b>Not really</b>	<b>To a minor extent</b>	<b>To a moderate extent</b>	<b>To a great extent</b>	<b>To a very great extent</b>

a. I have tried to develop students' critical thinking skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most students have learned critical thinking skills while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' critical thinking skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**COLLABORATION SKILLS** refer to students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.

**1. Here are some examples of practices that may help students learn COLLABORATION SKILLS.**

	<b>Almost never</b>	<b>A few times a semester</b>	<b>1-3 times per month</b>	<b>1-3 times per week</b>	<b>Almost daily</b>
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					

a. Work in pairs or small groups to complete a task together?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Work with other students to set goals and create a plan for their team?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Create joint products using contributions from each student?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

d. Present their group work to the class, teacher or others?	0	0	0	0	0
e. Work as a team to incorporate feedback on group tasks or products?	0	0	0	0	0
f. Give feedback to peers or assess other students' work	0	0	0	0	0
	<b>Not really</b>	<b>To a minor extent</b>	<b>To a moderate extent</b>	<b>To a great extent</b>	<b>To a very great extent</b>
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>					
a. I have tried to develop students' collaboration skills	0	0	0	0	0
b. Most students have learned collaboration skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' collaboration skills	0	0	0	0	0

**COMMUNICATION SKILLS** refer to students being able to organize their thoughts, data and findings and share these effectively through a variety of media, as well as orally and in writing.

**1. Here are some examples of practices that may help students learn COMMUNICATION SKILLS.**

	<b>Almost never</b>	<b>A few times a semester</b>	<b>1-3 times per month</b>	<b>1-3 times per week</b>	<b>Almost daily</b>
<b>In your TARGET CLASS, how often have you asked students to do the following</b>					
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	0	0	0	0	0
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	0	0	0	0	0
c. Prepare and deliver an oral presentation to the teacher or others?	0	0	0	0	0
d. Answer questions in front of an audience?	0	0	0	0	0
e. Decide how they will present their work or demonstrate their learning?	0	0	0	0	0
	<b>Not really</b>	<b>To a minor extent</b>	<b>To a moderate extent</b>	<b>To a great extent</b>	<b>To a very great extent</b>
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>					
a. I have tried to develop students' communication skills	0	0	0	0	0



b. Most students have learned communication skills while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**CREATIVITY AND INNOVATION SKILLS** refer to students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways.

**1. Here are some examples of practices that may help students learn CREATIVITY AND INNOVATION SKILLS.**

	<b>Almost never</b>	<b>A few times a semester</b>	<b>1-3 times per month</b>	<b>1-3 times per week</b>	<b>Almost daily</b>
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					

a. Use idea creation techniques such as brainstorming or concept mapping?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Generate their own ideas about how to confront a problem or question?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Test out different ideas and work to improve them?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

d. Invent a solution to a complex, open-ended question or problem?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Create an original product or performance to express their ideas?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>Not</b>	<b>To a minor</b>	<b>To a</b>	<b>To a</b>	<b>To a very</b>
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>	<b>really</b>	<b>extent</b>	<b>moderate</b>	<b>great</b>	<b>great</b>
			<b>extent</b>	<b>extent</b>	<b>extent</b>
a. I have tried to develop students' creativity and innovation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most students have learned creativity and innovation skills while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' creativity and innovation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SELF-DIRECTION SKILLS** refer to students being able to take responsibility for their learning by identifying topics to pursue and processes for their own learning, and being able to review their own work and respond to feedback.

**1. Here are some examples of practices that may help students learn SELF-DIRECTION SKILLS.**

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					
a. Take initiative when confronted with a difficult problem or question?	0	0	0	0	0
b. Choose their own topics of learning or questions to pursue?	0	0	0	0	0
c. Plan the steps they will take to accomplish a complex task?	0	0	0	0	0
d. Choose for themselves what examples to study or resources to use?	0	0	0	0	0
e. Monitor their own progress towards completion of a complex task and modify their work accordingly?	0	0	0	0	0
f. Use specific criteria to assess the quality of their work before it is completed?	0	0	0	0	0
g. Use peer, teacher or expert feedback to revise their work?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>					
a. I have tried to develop students' self-direction skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most students have learned self-direction skills while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' self-direction skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**GLOBAL CONNECTIONS** refers to students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.

**1. Here are some examples of practices that may help students learn to make GLOBAL CONNECTIONS.**

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					

a. Study information about other countries or cultures?

b. Use information or ideas that come from people in other countries or cultures?

c. Discuss issues related to global interdependency (for example, global environment trends, global market economy)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Understand the life experiences of people in cultures besides their own?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Study the geography of distant countries?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Reflect on how their own experiences and local issues are connected to global issues?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>Not really</b>	<b>To a minor extent</b>	<b>To a moderate extent</b>	<b>To a great extent</b>	<b>To a very great extent</b>
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>					
a. I have tried to develop students' skills in making global connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most students have learned to make global connections while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' skills in making global connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**LOCAL CONNECTIONS** refers to students being able to apply what they have learned to local contexts and community issues.

1. Here are some examples of practices that may help students learn to make LOCAL CONNECTIONS.

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					
a. Investigate topics or issues that are relevant to their family or community?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Apply what they are learning to local situations, issues or problems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Talk to one or more members of the community about a class project or activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Analyze how different stakeholder groups or community members view an issue?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Respond to a question or task in a way that weighs the concerns of different community members or groups?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>Not really</b>	<b>To a minor extent</b>	<b>To a moderate extent</b>	<b>To a great extent</b>	<b>To a very great extent</b>

**2. To what extent do you agree with these statements about your TARGET CLASS?**

a. I have tried to develop students' skills in making local connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most students have learned to make local connections while in my class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have been able to effectively assess students' skills in making local connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**USING TECHNOLOGY AS A TOOL FOR LEARNING** refers to students being able to manage their learning and produce products using appropriate information and communication technologies

**1. Here are some examples of practices that may help students learn to USE TECHNOLOGY as a TOOL FOR LEARNING.**

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
<b>In your teaching of your TARGET CLASS, how often have you asked students to do the following</b>					

a. Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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b. Select appropriate technology tools or resources for completing a task?	0	0	0	0	0
c. Evaluate the credibility and relevance of online resources?	0	0	0	0	0
d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	0	0	0	0	0
e. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	0	0	0	0	0
f. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	0	0	0	0	0
g. Use technology to interact directly with experts or members of local/global communities?	0	0	0	0	0
h. Use technology to keep track of their work on extended tasks or assignments?	0	0	0	0	0
	<b>Not</b>	<b>To a minor</b>	<b>To a</b>	<b>To a</b>	<b>To a very</b>
<b>2. To what extent do you agree with these statements about your TARGET CLASS?</b>	<b>really</b>	<b>extent</b>	<b>moderate</b>	<b>great</b>	<b>great</b>
			<b>extent</b>	<b>extent</b>	<b>extent</b>



a. I have tried to develop students' skills in using technology as a tool for learning	0	0	0	0	0
b. Most students have learned to use technology as a tool for learning while in my class	0	0	0	0	0
c. I have been able to effectively assess students' skills in using technology for learning	0	0	0	0	0

**APPENDIX-B: Semi-Structured Instructors' Interview Form****Instructors' Interview Form*****Part A. 21<sup>st</sup> century skills***

1. What do 21<sup>st</sup> century skills mean to you?
2. Which of the 21<sup>st</sup> century skills do you think have significant importance? Why?
3. How knowledgeable do you think you are about 21<sup>st</sup> century skills?
4. It is expected that learners need to be collaborative, creative and technologically proficient. How do you develop their 21<sup>st</sup> century skills?
5. So far, in your teaching experience, have you ever created learning practices that support teaching and learning of 21<sup>st</sup> century skills? If so, what are they?

***Part B. 21<sup>st</sup> century skills in in-service training***

6. Do you think the 21<sup>st</sup> century skills are important for the in-service teachers? Why?
7. Do you think teachers need in-service training related to the 21<sup>st</sup> century skills?
8. What kind of a training do teachers need to teach those skills to the students effectively?

***Part C. 21<sup>st</sup> century skills and assessment***

9. How do you incorporate the 21<sup>st</sup> century skills into your assessment processes?
10. How could students' 21<sup>st</sup> century skills be assessed in EFL classes?
11. Which assessment types are more appropriate for assessing students' 21<sup>st</sup> century skills
  - a. What are the advantages of these assessment types?
  - b. What are the disadvantages of these assessment types?
12. Do you face with difficulties when assessing students' 21<sup>st</sup> century skills? What are they?
13. Do you want to add anything else about your perceptions of the assessment methods of 21<sup>st</sup> century skills?

## APPENDIX-C: Sample Qualitative Analysis Page for Semi-Structured Interview

CODES	PARTICIPANT 2	THEMES	
Technological changes today	<p>1. <b>What do 21st century skills mean to you? . Do you have any idea what do you know about them?:</b> actually everything is changing day by day and accordingly we should arrange our lesson so while doing this we should take the changes into consideration and leave the 21st century skills are among those changes. First as far as I know some technological changes and some other qualities should be paid more attention. For example creativity or autonomy and other things and while In my classes I try to be more careful about those issues and I try to integrate them into my lessons and the most important one is making my students more autonomous and to do this actually I give them a chance to make their choices because we should not hold all of the ropes in the classroom we are not the authority yeah we may seem like an authority but actually we are not because they are the part of the mmm actually the center of the classes the students I mean so actually I have a general idea about them</p>	Understanding of 21 <sup>st</sup> century skills	<p>Microsoft Office User Code: technological changes of today</p>
technology to improve autonomy	<p>2. <b>which of these skills do you think have importance and why?</b> I think technology literacy is the most important of all because as I said I try to make them more autonomous and while doing this they should reach the information by themselves. To do this they should know how to use technological things, web tools or other things. So as teachers we should be aware of them and students are doing something well about technology so we should keep up them with them and also we should be a guidance for them have to reach the information.</p>	Perception/ general awareness level	<p>Microsoft Office User Code: technology to improve autonomy</p>
Project-based learning to improve collaboration	<p>3. <b>How do you develop their 21st century skill how do you develop students skills?</b> actually I tried to give them some project-based tasks in this way they learn how to work collaboratively and while doing things they shared the duties and by doing this also so they should use technology to reach the info, separately I mean, that's my answer actually I try to</p>	Recent learning and teaching methods	<p>Microsoft Office User Code: Project-based learning to improve c Microsoft Office User</p>

## APPENDIX-D: Sample Qualitative Analysis Page for Alternative Assessment Tools

### Speaking Portfolio – Individual Presentation Announcement

Dear Students, - You are expected to do some research on a subject which appeals to you.

You should follow the following steps:

- a. Identify a problem in the area you are interested in. (What is the problem? Why do you think this is a problem? – Answer these questions briefly.)
- b. Propose a solution. (What can be done to solve this problem? – Come up with an idea either by making/designing a new type of thing (e.g., an invention such as a machine, tool, or instrument) or by revising an existing system to improve it.
- c. If you invent something, draw a rough sketch of this invention and give further information (e.g., How does it work?). If you revise an existing system, give background information first and then discuss the improvement(s).
- d. Think about the drawbacks, too. (Is your project economically and technically feasible enough? Is it a long-term or short-term solution? Are there any potential dangers? and so on.)

- Use structures and vocabulary appropriate for your level. There should not be a lot of technical terms. If there are any, you will also be responsible for explaining them.

- Practice your presentation to ensure it fits within the allocated time frame. Don't read from your notes. Be natural.

- Your instructor will grade your performance using a rubric. Please, check out the rubric before you start so you will have an idea of what is expected from you. All the presentations will be given on the same day. If you are absent on that day, you will not be able to make up for the presentation you did not give. Please see the following deadlines:

Microsoft Office User  
Critical Thinking

Microsoft Office User  
Creativity

Microsoft Office User  
Communication

## APPENDIX- E: Eğitim Bilimleri Enstitüsü Araştırma Etik Kurulu Onay Bildirimi



T.C.  
HACETTEPE ÜNİVERSİTESİ REKTÖRLÜĞÜ  
Rektörlük

Tarih: 06/09/2022  
Sayı: E-35853172-300-  
00002373898

Sayı : E-35853172-300-00002373898  
Konu : Ayşe ALTAY Hk. (Etik Komisyon İzni)

6.09.2022

### EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 25.07.2022 tarihli ve E-51944218-300-00002300825 sayılı yazınız.

Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi doktora programı öğrencilerinden **Ayşe ALTAY**'ın **Prof. Dr. İsmail Hakkı MİRİCİ** danışmanlığında yürüttüğü "**İngilizce Öğretmenlerinin 21. Yüzyıl Becerilerine İlişkin Öz Algısı, Bu Becerilerin Öğretim ve Değerlendirmedeki Rolü**" başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun **09 Ağustos 2022** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini rica ederim.

Prof. Dr. Vural GÖKMEN  
Rektör Yardımcısı

**Bu belge güvenli elektronik imza ile imzalanmıştır.**

Belge Doğrulama Kodu: 94368174-E7C2-45BA-AD52-904ECD1D62A2

Belge Doğrulama Adresi: <https://www.turkiye.gov.tr/hu-ebys>

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Bilgi için: Duygu Didem İLERİ

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Kep: hacettepeuniversitesi@hs01.kep.tr



**APPENDIX-F: Declaration of Ethical Conduct**

I hereby declare that...

- I have prepared this thesis in accordance with the thesis writing guidelines of the Graduate School of Educational Sciences of Hacettepe University;
- all information and documents in the thesis/dissertation have been obtained in accordance with academic regulations;
- all audio visual and written information and results have been presented in compliance with scientific and ethical standards;
- in case of using other people's work, related studies have been cited in accordance with scientific and ethical standards;
- all cited studies have been fully and decently referenced and included in the list of References;
- I did not do any distortion and/or manipulation on the data set,
- and **NO** part of this work was presented as a part of any other thesis study at this or any other university.

24/07/24

(Signature)

Ayşe ALTAY

## APPENDIX-G: Thesis/Dissertation Originality Report

24/07/2024

HACETTEPE UNIVERSITY  
Graduate School of Educational Sciences  
To The Department of Foreign Language Education

Thesis Title: EFL Instructors' Self-Perception of 21<sup>st</sup> Century Skills, The Role of These Skills in Teaching and Assessment Procedures

The whole thesis that includes the *title page, introduction, main chapters, conclusions and bibliography section* is checked by using **Turnitin** plagiarism detection software take into the consideration requested filtering options. According to the originality report obtained data are as below.

Time Submitted	Page Count	Character Count	Date of Thesis Defense	Similarity Index	Submission ID
25/07/2024	258	419392	24/07/2024	%20	2421274256

Filtering options applied:

1. Bibliography excluded
2. Quotes included
3. Match size up to 5 words excluded

I declare that I have carefully read Hacettepe University Graduate School of Educational Sciences Guidelines for Obtaining and Using Thesis Originality Reports; that according to the maximum similarity index values specified in the Guidelines, my thesis does not include any form of plagiarism; that in any future detection of possible infringement of the regulations I accept all legal responsibility; and that all the information I have provided is correct to the best of my knowledge.

I respectfully submit this for approval.

**Name Lastname:** Ayşe ALTAY

**Student No.:** N19144541

**Department:** Foreign Languages Education

**Program:** English Language Teaching

**Status:**  Masters  Ph.D.  Integrated Ph.D.

Signature

### ADVISOR APPROVAL

APPROVED  
(Prof. Dr. İsmail Hakkı MİRİCİ, Signature)

## APPENDIX-H: Yayınlama ve Fikrî Mülkiyet Hakları Beyanı

Enstitü tarafından onaylanan lisansüstü tezimin/raporumun tamamını veya herhangi bir kısmını, basılı (kâğıt) ve elektronik formatta arşivleme ve aşağıda verilen koşullarla kullanıma açma iznini Hacettepe Üniversitesine verdiğimi bildiririm. Bu izinle Üniversiteye verilen kullanım hakları dışındaki tüm fikri mülkiyet haklarım bende kalacak, tezimin tamamının ya da bir bölümünün gelecekteki çalışmalarda (makale, kitap, lisans ve patent vb.) kullanım hakları bana ait olacaktır.

Tezin kendi orijinal çalışmam olduğunu, başkalarının haklarını ihlal etmediğimi ve tezimin tek yetkili sahibi olduğumu beyan ve taahhüt ederim. Tezimde yer alan telif hakkı bulunan ve sahiplerinden yazılı izin alınarak kullanılması zorunlu metinlerin yazılı izin alınarak kullandığımı ve istenildiğinde suretlerini Üniversiteye teslim etmeyi taahhüt ederim.

Yükseköğretim Kurulu tarafından yayınlanan "**Lisansüstü Tezlerin Elektronik Ortamda Toplanması, Düzenlenmesi ve Erişime Açılmasına İlişkin Yönerge**" kapsamında tezim aşağıda belirtilen koşullar haricince YÖK Ulusal Tez Merkezi / H.Ü. Kütüphaneleri Açık Erişim Sisteminde erişime açılır.

- Enstitü/Fakülte yönetim kurulu kararı ile tezimin erişime açılması mezuniyet tarihinden itibaren 2 yıl ertelenmiştir. <sup>(1)</sup>
- Enstitü/Fakülte yönetim kurulunun gerekçeli kararı ile tezimin erişime açılması mezuniyet tarihinden itibaren ... ay ertelenmiştir. <sup>(2)</sup>
- Tezimle ilgili gizlilik kararı verilmiştir. <sup>(3)</sup>

24 /07/2024

(imza)

Ayşe ALTAY

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"Lisansüstü Tezlerin Elektronik Ortamda Toplanması, Düzenlenmesi ve Erişime Açılmasına İlişkin Yönerge"

- (1) Madde 6.1. Lisansüstü teze ilgili patent başvurusu yapılması veya patent alma sürecinin devam etmesi durumunda, tez danışmanının önerisi ve enstitü anabilim dalının uygun görüşü üzerine enstitü veya fakülte yönetim kurulu iki yıl süre ile tezimin erişime açılmasının ertelenmesine karar verebilir.
- (2) Madde 6.2. Yeni teknik, materyal ve metotların kullanıldığı, henüz makaleye dönüşmemiş veya patent gibi yöntemlerle korunmamış ve internette paylaşılması durumunda 3 şahıslara veya kurumlara haksız kazanç; imkânı oluşturabilecek bilgi ve bulguları içeren tezler hakkında tez danışmanının önerisi ve enstitü anabilim dalının uygun görüşü üzerine enstitü veya fakülte yönetim kurulunun gerekçeli kararı ile altı ayı aşmamak üzere tezimin erişime açılması engellenebilir.
- (3) Madde 7.1. Ulusal çıkarları veya güvenliği ilgilendiren, emniyet, istihbarat, savunma ve güvenlik, sağlık vb. konulara ilişkin lisansüstü tezlerle ilgili gizlilik kararı, tezin yapıldığı kurum tarafından verilir\*. Kurum ve kuruluşlarla yapılan işbirliği protokolü çerçevesinde hazırlanan lisansüstü tezlere ilişkin gizlilik kararı ise, ilgili kurum ve kuruluşun önerisi ile enstitü veya fakültenin uygun görüşü üzerine üniversite yönetim kurulu tarafından verilir. Gizlilik kararı verilen tezler Yükseköğretim Kuruluna bildirilir.  
Madde 7.2. Gizlilik kararı verilen tezler gizlilik süresince enstitü veya fakülte tarafından gizlilik kuralları çerçevesinde muhafaza edilir, gizlilik kararının kaldırılması halinde Tez Otomasyon Sistemine yüklenir

\*Tez danışmanının önerisi ve enstitü anabilim dalının uygun görüşü üzerine enstitü veya fakülte yönetim kurulu tarafından karar verilir.



